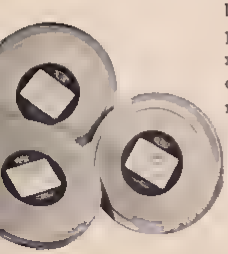
AMERICAN Cinematographer

THE MAGAZINE OF MOTION PICTURE PHOTOGRAPHY

JANUARY 1948



Du Pont Superior 2 has won the approval of leading cinematographers everywhere It is an all-purpose taking-stock used with full confidence that it will meet a wide range of lighting conditions E I du Pont de Nemours & Co (Inc), Photo Products Department, Wilmington 98, Delaware

New York • Hollywood • Chicago

Features:	
Excellent flesh tones	Fine grain
Extreme wide latitude	Speed
Color balance	Uniformity
	Retention of latent image

(Listen to Cavalcade of America '—Monday evenings—NBC)

DU PONT

Motion Picture Film

DU PONT

BETTER THINGS FOR BETTER LIVING
. . . THROUGH CHEMISTRY

Announcing

IT's in production *now*—the long-awaited Bell & Howell 16mm camera built to the standards of design and performance found in 35mm studio cameras. Here are a few of the features that make Filmo Specialist the camera news of the year:

Filmo 70-J Specialist *by* BELL & HOWELL

FILMO 70-D BASIC MECHANISM—proved sturdy and dependable by 25 years of service.

SHIFT-OVER FOCUSING on full-frame image brilliantly illuminated on ground glass

POSITIVE VIEWFINDER with easy parallax adjustment.

4-LENS TURRET HEAD with automatic catch to hold lens precisely at aperture

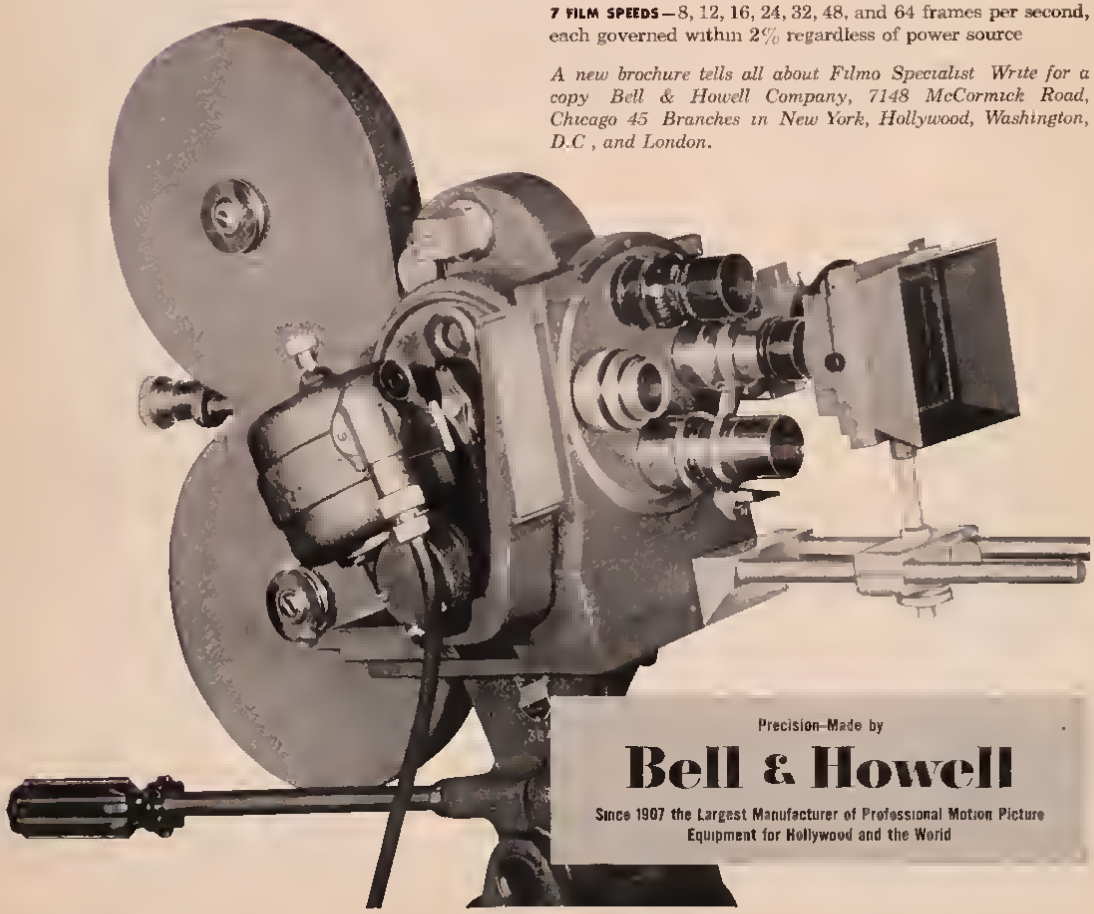
EXTERNAL FILM MAGAZINES, light-tight, scratch-proof, in 200′ or 400′ capacity. Or use 100′ spools *inside* the camera

3 POWER SOURCES—spring motor, hand crank, and electric motor, the latter for 12-, 24 , or 115-volt supply.

VEEDER-ROOT FOOTAGE COUNTER, quickly reset to "0."

7 FILM SPEEDS—8, 12, 16, 24, 32, 48, and 64 frames per second, each governed within 2% regardless of power source

A new brochure tells all about Filmo Specialist. Write for a copy. Bell & Howell Company, 7148 McCormick Road, Chicago 45. Branches in New York, Hollywood, Washington, D.C., and London.



Precision-Made by

Bell & Howell

Since 1907 the Largest Manufacturer of Professional Motion Picture Equipment for Hollywood and the World

professional

When you think of 16mm production

Think of the *Mitchell 16* *

RAMSEY PICTURE CORPORATION

2012 N FIELD ST · DALLAS 1, TEXAS

November 8, 1947

Mitchell Camera Corporation
666 West Harvard
Glendale, California

Attention: Mr. J. D. McCall

Gentlemen:

The Mitchell 16mm Professional camera, which we are now proudly using in our Dallas studio, is truly the "No. 1 Son" of its illustrious father, the Mitchell "35," the standard camera of the Motion picture world.

We find that this attractive instrument, rugged though watch-like in its precision, is startling in its similarity to the Mitchell "35" both in appearance and performance. The equipment which we were obliged to use in our professional work just would not stand up under the strain of production.

The generous view-finder, ease and speed of operation -- and "he-man" appearance of the Mitchell "16" -- are improvements that have warmed the hearts of our professional directors, while our cameramen have been engaged in a good-natured rivalry for the use of this sturdy, efficient camera ever since it was delivered to us.

We can honestly say the "Professional 16" has removed all the camera "bugs" from our 16mm production.

Congratulations!

Very truly yours,

RAMSEY PICTURE CORPORATION

Arthur B. Ramsey

President

Mitchell Camera CORPORATION

666 WEST HARVARD STREET • GLENDALE 4, CALIFORNIA • CABLE ADDRESS: "MITCAMCO"

EASTERN REPRESENTATIVE THEODORE ALTMAN • 521 FIFTH AVENUE • NEW YORK CITY 17 • MURRAY HILL 2-7038

* 85% of the motion pictures shown in theatres throughout the world are filmed with a Mitchell

AMERICAN CINEMATOGRAPHER

THE MOTION PICTURE CAMERA MAGAZINE

VOL. 29 JANUARY, 1948 NO. 1

CONTENTS

Filter Screen Recommended for Interior-Exterior Shots
by VICTOR MILNER, A.S.C. 7

'Forever Amber'—Tapestry in Technicolor *by* HERB A. LIGHTMAN 8

Color Is Different *by* ROBERT SURTEES, A.S.C. 10

Theatre Television *by* LOREN L. RYDER 12

The Cinema Workshop (19—Presenting Your Films)
by CHARLES LORING 16

Among the Movie Clubs 20

Adventures of Rudy Crude *by* B. F. FITZGERALD 22

Current Assignments of A.S.C. Members 32

ON THE FRONT COVER—Director of Photography Robert Burks, A.S.C., (behind camera) ready to make an unusual scene of Dennis Morgan in elevator for the Warner Production of "To the Victor," with director Delmar Daves riding the shot in bucket seat of crane. Crane and elevator together dropped 30 feet from top to floor of stage to film the shot.

OFFICERS AND BOARD OF GOVERNORS
AMERICAN SOCIETY OF CINEMATOGRAPHERS

Leon Shamroy, President — Fred W. Jackman, Exec. V.-Pres. and Treas.
Charles Clarke, First Vice-President — William V. Skall, Second Vice-President
Lee Garmes, Third Vice-President — Ray Rennahan, Secretary
John Boyle, Sergeant-at-Arms

John Arnold, Arthur Edeson, George Folsey
Alfred Gilks, Sol Polito, Charles Rosher
John Seitz, Joseph Walker

ALTERNATE BOARD MEMBERS

Sol Halperin, Milton Krasner, Joseph La Shelle
Joseph Ruttenberg, Robert Surtees

The Staff

EDITOR
Walter R. Greene

TECHNICAL EDITOR
Emery Huse, A.S.C.

MILITARY ADVISOR
Col. Nathan Levinson

ARTIST
Glenn R. Kershner, A.S.C.

CIRCULATION AND ADVERTISING
Marguerite Duerr

ADVISORY EDITORIAL BOARD
Fred W. Jackman, A.S.C.
John Arnold, A.S.C.
Arthur Edeson, A.S.C.
Lee Garmes, A.S.C.
Charles Rosher, A.S.C.
Leon Shamroy, A.S.C.
Fred Cage, A.S.C.
Dr. J. S. Watson, A.S.C.
Dr. L. A. Jones, A.S.C.
Dr. C. E. K. Mees, A.S.C.
Dr. V. B. Sease, A.S.C.

AUSTRALIAN REPRESENTATIVE
McGill's, 179 Elizabeth Street, Melbourne, Australian and New Zealand Agents

Published monthly by A.S.C. Agency, Inc.
Editorial and business offices
1782 North Orange Drive
Hollywood (Los Angeles 28), California
Telephone GRanite 2135

Established 1920. Advertising rates on application. Subscriptions: United States and Pan-American Union, $2.50 per year; Canada, $2.75 per year; Foreign, $3.50. Single copies, 25c; back numbers, 30c; foreign single copies, 35c; back numbers, 40c.

Copyright 1948 by A.S.C. Agency, Inc.

Entered as second class matter Nov. 18, 1937, at the postoffice at Los Angeles, California, under the act of March 3, 1879.

for the *ultimate* in motion picture image quality . . .

BAUSCH & LOMB

BALTAR LENSES for CINEMATOGRAPHY

Leading professional cameramen, who are distinguished internationally for superlative motion picture photography, prefer Baltars. They know that Baltars meet their most exacting needs for 35 mm and 16 mm in black-and-white and color.

BAUSCH & LOMB

SUPER CINEPHOR LENSES for PROJECTION

To cameramen who film process backgrounds, and to theatre operators everywhere Super Cinephor means screen images of highest edge-to-edge brilliance and sharpness.

Write for complete information

BAUSCH & LOMB

OPTICAL COMPANY ROCHESTER 2, N Y.

Filter Screen Recommended For Interior — Exterior Shots

by VICTOR MILNER, A.S.C.

FOR the past number of years the problem of the cinematographer to control or balance natural interiors with brilliant exteriors has been a condition taxing us to the utmost. With the advent of the factual type of story filmed today away from the studios, and with companies scattered all over the country, the above problem has become a real headache.

To obtain perfect detail in a normally lighted interior, shooting out to an over brilliant exterior, has led a great many of us in the past to try various methods to control it. It was not very difficult to place colored glass in small window openings, or to cut gelatins that could be readily pinned on. The cutting of small pieces of celluloid dyed with whatever color the cinematographer desired to hold the exterior light down, did not offer any great problem. The unfortunate part was that when the openings in windows or in doorways were of large dimensions the above method could not be used and forced many of us to resort to the use of gauze or bobonets. Again, the problem was far from being solved. The gauze placed outside of doorways interfered with entrances and exits of actors, plus the fact that we were forced to use an enormous amount of artificial light in the interior to balance with the exterior, as the gauze in itself was not sufficient to control the exposure.

The difficulties on location of obtaining enough generator output, and the necessary heavy lighting equipment to balance the interior with the exterior, is not only a costly problem, but the time element involved is something none of us can ignore nowadays.

I have for many years tried to solve this problem and found a possible solution by adapting the method used by many shopkeepers to protect valuable merchandise displayed in their windows, a resort to the use of large sheets of celluloid of different colors which can be rolled up or down in a few moments. It, therefore, occurred to me that the same method can be used on the set by dying the large sheets of celluloid or plastic material with the same colors that our filter factors are dyed today. We, therefore, will be able to roll down a neutral density dyed sheet or a 23A-56 or even a graduate with which to control an over-backlighted sky. And if you find this method impractical, the making up of frames on which you can stretch the large sheets of the dyed celluloid, I am sure, would work out very effectively.

The use of a graduate with a 50 or 75 neutral density screen can be readily accomplished by rolling the graduate down to the place desired over any other screen.

The screen of celluloid or plastic material must be of sufficient thickness to prevent buckling. Larger screens can be made up by cementing them together, making as narrow a patch as possible.

A further use of the screens can be made by using a frame on which the large sheet of celluloid dyed to the filter factor you wish to use and placed behind the actor or actors in a medium shot or close-up, would make it possible for you to eliminate the use of a filter in the camera and to cut down the amount of light used on the principals in front of the celluloid screen, enabling the performers to open their eyes and give a much more natural performance as against the use of a terrific amount of light in order to balance the exterior by the use of a filter in the camera. This method will also eliminate over-correction on the subject before the camera.

Up to the present, our raw stock manufacturers have had no call for this type of material. I am certain, however, that an industry request for such equipment will be recognized immediately. At least I, for one, do hope that early availability of large filter sheets described above will allow for better results in cinematography.

"FOREVER AMBER"

TAPESTRY IN TECHNICOLOR

☆

by HERB A. LIGHTMAN

"FOREVER AMBER, Kathleen Winsor's lusty novel of Restoration England, has at last been brought to the screen in a burst of Technicolor glory by the Twentieth Century-Fox Studios

As this reviewer predicted several months ago (after having spent a good deal of time on the set of 'Amber' during shooting), there seems to be a fair amount of critical controversy regarding the film's value as dramatic art—but only unanimous praise for the magnificent Technicolor photography of Leon Shamroy, A.S.C.

Admitting that the acting in the film rarely manages to climb above the level of that in the average high school Senior Play, it cannot be denied by even the most waspish critic that 'Amber' is a visual spectacle of a magnificence seldom before seen on the screen. Indeed if ever a dramatically anemic story were saved by superb production technique—this is it. The photography is so polished, the costumes and sets so handsomely designed, and the historical period so faithfully reproduced, that even the anti-climatic flounderings of the emasculated plot frequently emerge as glamorous entertainment.

Let it be said in all fairness to the producers of the film, that they have struck the fairest possible medium between the requirements of mass box office taste, the censorship taboos of the Johnston Office and faithfulness to a third-rate novel whose main appeal as best-selling literature was its detailed account of the somewhat amateurish boudoir antics of a 17th Century slut.

Typical of the miracles wrought in the adaptation is the fact that the heroine (an admittedly unprincipled baggage) manages to produce an illegitimate child as the result of a conception that is apparently immaculate. In fact, according to the carefully sterilized screenplay, nothing even faintly carnal happens to her up to that point except that she is kissed in a shamelessly brotherly fashion by her celluloid lover who seems quite bored with the whole prospect. But no matter how they slice it, "Forever Amber" is basically a *cameraman's* picture—and as such it is one of the finest production jobs ever to reach the screen.

Jewel-toned Technicolor

As a visual presentation, 'Amber' is distinguished (and the word is used *literally*) by color photography that probably comes as close to perfection as any blending of art and mechanics can come. Leon Shamroy, A.S.C., has infused the production with jewel-like color that seems to sparkle and glow at the same time. His camera treatment, combined with art direction and costume design of superlative quality, results in a screen pageant that is like nothing so much as a Gobelin tapestry brought to life. He has succeeded in capturing the authentic mood of a lusty historical period—at the same time lending it that touch of stylized mellowness with which time glosses over the harshness of an age long since past.

Such a result is, of course, no accident—but rather the final product of intelligent teamwork by all department heads actively engaged in molding the production. In planning the pictorial approach to the film, Shamroy worked very closely with Director Otto Preminger, Art Director Lyle Wheeler and Costume Designer René Hubert. No set was constructed and no costume executed until it had received his technical approval. As Director of Cinematography he was directly responsible for the photographic result appearing on the screen—and it was his job to evaluate each scene from the threefold viewpoint of *art, drama* and *mechanics*.

Explaining his theory of creative cinematography, Shamroy says: "In photographing any production—whether it be color or black-and-white—the professional technique is purely individualistic because it results from the Director of Photography's own particular style. But since the cinema is a basically *visual* medium each production must be photographed in such a way that it will not become monotonous. In filming a color picture the cinematographer must use variety in designing the lighting and in the use of color itself. There cannot be a sameness of lighting throughout. Sequences calling for moonlight, daylight or candle light (as were required for 'Amber') demand a change in mood in lighting—and such changes should serve as stimulants to the audience viewing the film."

Shamroy's approach to a particular sequence is determined mainly by the dramatic idea which is to be conveyed by the action within that sequence. The dominant mood, the lighting key, and the subdued or forceful use of color all evolve from this basic concept, so that the sequence as it finally appears on the screen is not merely an attractive *mélange* of light and color but an integrated unit accurately keyed to the emotional meaning of the story situation. When the pictorial approach is thus so precisely motivated, there is no danger of the photography lapsing into a pattern of stock formula. Each sequence is original in its execution while yet remaining consistent with the overall approach of the film.

Restrained Color Emphasis

Since the Twentieth Century-Fox production of 'Forever Amber' was conceived as a realistic drama of human emotions and not as one of the candy-coated filmusicals which the same studio is so adept at turning out—the principle photographic problem was to tone down the force of the color, a particularly difficult task in view of the fact that the film deals with one of the most garishly colorful periods in history.

Shamroy points out that the Technicolor camera, by its very nature, tends to accentuate an audience's awareness of color in a scene. 'Very few people realize how much color actually exists in everyday life,' he observes. 'There is a general unawareness of colors until you get behind a camera to photograph a scene and are immediately struck with the amount of brilliance which is present. The reason for this is that when color is encased in a frame, it registers forcefully and becomes exaggerated by its imprisonment. The action in 'Forever Amber' took place during the Restoration Era, a lush and colorful period in which people wore especially brilliant costumes. Therefore, the main photographic problem in translating the story to the screen was to *de-emphasize* the color so that it would

"Forevar Amhar," photographed in magnificent Technicolor by Leon Shamroy, A S C., is an exampla of photography accurately keyad to situations of widely varying character The mood of a rural English countryside (left) is precisely reproducad through a combination of simplicity of camara angle mist-filtarad lighting and pastel color design The alaganca of Whitehall Palaca (right) is mada to sparkla regally through tha usa of crisp high-hey lighting and wida-angla compositions calculatad to convay tha impression of spacious halls

nor detract from the characters or from the dramtic action"

With this in mind, *natural* colors (i e grey, green, brown, and black) were used as predominant areas for settings and costumes The brighter hues were applied sparingly in the more dramatic sequences Shamroy maintains that no radically new or different photographic techniques were used in getting Amber onto film Shooting was basically no differenr from his previous assignments State Fair," The Black Swan," Crash Dive," Wilson," and "Leave Her to Heaven He does however, point out that the film employs *refinements* of previously conceived color photography techniques He feels that the various avenues of color cinematography have not yet been fully or properly explored, because color tests are so expensive that the studios are reluctant to do much research along these lines Consequently, cinematographers on color features must learn from their own experiences and from those of their fellow cameramen as they go along

Because of the wider apertures necessary to record sufficient light for Technicolor photography and the resultant loss in *depth of field* a 25 mm. wide-angle lens was used almosr exclusively in shooting Amber Only in rhe relatively few close up scenes were lenses of longer focal-length employed

Ever-Changing Spectacle

The great variety of situations and locales portrayed in Forever Amber created a combined challenge and field-day for the cinematographer The film opens with an exterior night sequence in which the infant Amber is left on the doorstep of a peasanr hut by an unidentified party fleeing from rhe wrath of the Roundheads Having thus made her somewhat vague debut, she is next shown as a full-blown young charmer with a positive itch to become the mascot of a band of cavaliers on their way to join the court of the restored Charles II in London

These rural scenes are photographically excellent The night shots actually look like *night* and the interiors are done in a mellow low key that faithfully simulates the candlelight illumination of the period Later, when Amber is flung into prison, rhe lighting skillfully accentuates the murky, smoke-filled atmosphere of her grim cell

In the film's earlier sequences, during which Amber is portrayed as an amateur tramp trying to win her merit-badge in skullduggery the shabby locales and set-

(Continued on Page 30)

Scanes from tha two most strihing (and photographically complax) sequences in "Foravar Amhar" ara raproducad ahova (Left) Tha blaxing horror of tha Great London Fire is projactad in a subjactiva mannar by maans of lighting and camara anglas which placa the audiance in tha thick of the blaxing inferno (Right) Tha duel sequance, a fine combination of chamical fog and mood lighting, is notahla for its almost complata lack of color Tha overall grey tona of the sequance is exactly in key with tha atmosphere of impanding doom which permaates tha situation

COLOR IS DIFFERENT

by ROBERT SURTEES, A.S.C.

Production number for "The Unfinished Dance" with Margaret O'Brien and Cyd Charisse. Note how costumes and players are prominent in contrast to the subdued background

DIRECTORS of Photography are confronted with many unusual problems when making their first color picture, after many years of photographing black-and white productions exclusively. This article is written from my personal experiences in changing over to the Technicolor process, and in order to help other Directors of Photography who sometime must make a similar step.

Mr. Joseph Pasternak, producer and Henry Koster, director, assigned me to their MGM production, "The Unfinished Dance," a story of the ballet theatre, because I had never before photographed a color picture. It was a new and novel approach all right, but before many days on production, I wished for just a bit more experienced background. Without careful study of the work done by other cameramen in the field of color photography previously I would not have been able to tackle the assignment. At least, "The Unfinished Dance" used a different approach.

Foremost was the idea of using color as a story point. To clarify this—the use of any specific color, such as red, should have a dramatic or story-telling effect on the plot of the screenplay. Therefore, into the script of "The Unfinished Dance" was injected the following.

The color red, was on a coat worn by one girl, the heavy, who throughout the story uses it to bribe another girl who desires a red coat more than anything else in the world. Another example of using color for dramatic effect—it was planned to have the ballet dancers in white costumes in their dressing room which has neutral gray walls—suddenly the door of the room bursts open and a girl in a bright yellow dress runs in excitedly. The *yellow* now becomes the focus of all attention and the other girls in white crowd around her. Naturally the audience's eyes goes directly to the girl in yellow where the dramatic interest lies.

With such an approach the picture promised to be an interesting one from the cameraman's viewpoint. Following this preliminary planning ensued the usual conferences with the art department, wardrobe, costumes, make up and the Technicolor consultants.

The art department under Mr. Cedric Gibbons and his associate, Danny Cathcart, was all out for the plans. In fact, their intense interest and hard work made the entire production work out better than was ever expected. Famous paintings of ballets and of ballet costumes were studied carefully. All the sets were planned to be complimentary to the colors used in the wardrobe on the people working in the scenes. Many people cry for the use of pastels in Technicolor pictures claiming they look softer more pleasing and better to the eye. We found this not to be true—a British film 'Henry V'

was run over several times by Mr Koster and all concerned This film was said to be very smooth and the costumes were claimed to be dyed in soft pastel colors Not once in our many screenings did we actually see a single pastel color, but we found that the pastel feeling was suggested by the careful choice of complimentary colors in the wardrobe and set walls In other words, if a blue was used on the wardrobe of the main actor the clothes of the people around him were of a tone somewhat lower in scale, such as gray, then the walls were of a neutral coloring. This we tried to maintain throughout The Unfinished Dance ' We also attempted to keep all the settings from being overdressed with furniture In this manner the design of the architectural features of the sets would appear simpler and in better taste with the clothes on our people

From the study I put in on viewing many famous paintings of the ballet, mostly the French Impressionistic School of painting, I drew the conclusion that the ballet numbers in the film should have as little contrast as possible It seemed that the beauty of the ballet could be best captured in Technicolor with a system of soft overall lighting of practically no contrast whatsoever All of the numbers in the picture are photographed in this manner Therefore the beauty of the dances are truly shown and a color effect was secured by the separation of the costumes colors from the backdrops which had been carefully designed by Mr Cathcart to be subdued beneath the tones of the wardrobe In one instance, the Bartered Bride number the stage backings were actually painted with heavy brush strokes as is found in Matisse ' paintings.

In another number, The Swan Lake,' the stage floor was composed of 1200 square feet of one-inch mirrors To the eye this was one of our most beautiful settings but when we started to light it, it was our biggest headache in the picture Each arc light that was used to light the dancers would reflect from the mirror floor and cast shadowy silhouettes on the backings The dancers could not be cross-lighted from the wings as the limited stage space would not permit it After much effort and also much luck we finally hit upon the idea of hanging large flats over the arcs lighting the stage and keeping the direct light off the dancers, but at the same time allowing the light to be reflected from the mirror floor to light the dancers This eliminated most of the shadows on the backdrops and, using care, it solved our problem

Another tough Technicolor situation arose in another sequence when we had to photograph an actor carrying nothing but a flash light—no other lights on the set! If you think this was easy to make believeable you are greatly mistaken We did get a very nice effect by building a special size flashlight with a photoflood bulb in it and ran a wire up the actor's sleeve and down through his trouser leg to our dimmer panel In viewing this sequence on the screen one wouldn t realize that at times we had six or seven follow spots working on cue to show the projected light from the flashlight shining on the walls as the actor walked about the set Also in this sequence we used open arcs without filters, Y-1's, as back light and glow lights behind the people Contrast in this case was allowed to be very high All in all it turned out successfully

So much for the picture, "The Unfinished Dance," and now for several things we found from experience in shooting our first color picture

Don t believe anyone you tells you that you can shoot color just like black and white—it won't take more than a few shots to convince you that that statement is a bit wild The process has a technical term called, 'Color Temperature, and you'll learn about it by the day you see your first rushes Of course you get one break, it takes three days to get your rushes back from the plant, so you are certain of three days pay before you get thrown off a picture And you can certainly guarantee yourself a long vacation if you try to shoot color as though it were black and white

I do not advocate flat lighting or a lot of fill light either, but it certainly requires a different balance than black and white. The primary bugaboo is the inclination of getting red faces when the key of lighting gets too low—this is a common fault of over-the-shoulder angles in close ups The person whose back is to the camera will definitely go red if he is kept in too low an amount of light as we do in black and white over-the-shoulder Bring him up almost to the normal key of light, and sometimes I even learned to place a light blue gelatin filter 25, on this key light When the faces go red you have dropped out of the low end of the scale or color temperature of the process

At all times be careful of the Duo Arcs which are used for a fill light like broads are in black-and-white Never use more than two silks on a Duo Arc—this light will really make a face go red on all occasions if over silked—if necessary to drop down the amount of light from the unit pull it back away from the object you are photographing until the proper density is secured Do not hang a lot of silks as it will change the color of the emitted light from the unit

Backlight in Technicolor can be very cold or look bluish on the hair It is a good policy to place light amber filters on all back lights such as 53 or 54 or double Y-1 s This will warm up the back light and look much better than the usual

(Continued on Page 31)

Color effect via photography for the Metro-Goldwyn-Mayer production, "The Unfinished Dance" was achieved by separation of costume colors from the backdrops especially for the ballet numbers. Difficult lighting problems for the above scenes were successfully overcome to provide startling effects.

THEATRE TELEVISION

by LOREN L. RYDER

Sound Department Head, Paramount Studio, Hollywood and President of Society of Motion Picture Engineers

(This informative and up to the minute paper on the present status of large screen television for motion picture theatres was presented by Mr Ryder at meeting of the Academy of Television Arts & Sciences, Hollywood on November 11th 1947.)

I HAVE had the good fortune of seeing all of the large-screen television equipment which has been demonstrated during the last several years and I have been able to sit in on many discussions of its use I will endeavor to convey this information to you

I have just returned from the 62nd semi-annual convention of the Society of Motion Picture Engineers where many papers were presented and where those present had an opportunity of witnessing a demonstration of direct projection large-screen television, the same performers photographed from a television tube processed and projected on 16 mm by the Eastman Process, selected 16 mm films of television images prepared by Dr T T Goldsmith of the Dumont Laboratories, slide films and a complete story on large screen television in England, and a complete review of U S television by Dr. A N Goldsmith

This is not going to be a technical discussion but rather a story of what is taking place, what are the trends, what are the possibilities and limitations, where do we the individuals, fit into this picture

I will start by distinguishing between television broadcasting and theatre television Television broadcasting is that activity which is now under way in New York, Philadelphia Washington D C, Schenectady, Chicago and Los Angeles whereby picture images are being telecast at random to anyone having a television receiver and antenna so located as to obtain a satisfactory signal Theatre television is the phase of this art which involves the large-screen projection of television images for viewing by an audience This may or may not be in a motion picture theatre

A few words about television broadcasting to the home

Most people have little idea or appreciation of the rapid strides being made in television broadcasting in the East, both technically and from the standpoint of entertainment presentation. In keeping with West Coast activity, sports are most popular but national events and well presented story and variety programs are gaining a regular following—commercials and all

The programs may originate anywhere from Schenctady to Washingron D C and can be relecast simultaneously ar Washington, D C. Philadelphia, New York and Schenectady A link to Boston is to be tested this week The East has many more receivers than the West Bars eating houses and hotels are featuring television receivers for their guests, even on a much more elaborate scale than in the West All of this work is in black and white The Columbia Broadcasting System, as you know, has discontinued the experimental relecasting of color television by the mechanical scanning procedure which they were advocating

LOREN L. RYDER

The recent rapid advance in television activity may be partly attributed to the image orthicon camera tube which, as most of you know, has a sensitivity many times greater than that of the iconoscope and 50 to 100 times greater than the fastest film This has made it possible for the television people to pick up afternoon and night sports events under any condition of lighting that is satisfactory for normal spectator observation It is to be noted that with the films now available, the same programs cannot be picked up for newsreel presentation in theatres

A large percentage of the programs are picked up by remote or telay pick up equipment and transmitted by microwave links to the location of the main transmitter where the link signal is received, amplified and re-transmitted over the main television transmitter The remote pick-up programs include sports events, current events of public interest and commercials at stores and factories The studio programs include live action shows and entertainment from motion picture film

It should be pointed out that, for the most part, feature type entertainment films are not and have not been popular

over television It is the opinion of some, with which I concur, that feature entertainment films such as are now being produced for the motion picture theatre will not provide the best form of television broadcast entertainment to the home Short subjects, travelogues and news events from film have been quite popular The use of film as an adjunct to television will be discussed later in greater detail

Many of us who have been fortunate enough to pioneer in both radio broadcasting and sound motion pictures feel that the format for television entertainment has not yet been found but when it is found or evolved, it will be quite different from the legitimate stage, the motion picture or radio broadcasting It will have an identity of its own There is another thing which should be apparent by now and that is that television broadcasting is not going to grow and sweep the country over night It has taken time for this type of entertainment to get under way in the East and we now find that the Midwest and West are going through the same growing period

Theatre Television

The recent technical advancement in theatre television even astounds the experts In January of this year the RCA Company made a rather unsatisfactory demonstration of an all-electronic color television system on a screen 24 inches wide On April 30th and May 1st the same company made a very satisfactory demonstration of color television on a screen 10 feet wide and 7½ feet high. This is a three-color simultaneous additive process which gave good resolution, good color value and good steadiness of image Pick-up for this demonstration was from Kodachrome slides and Kodachrome 16 transmission with no radio link This demonstration was made as a progress mm motion picture film It was direct report with no claim by the engineers that the equipment as presented was ready for theatre use

It is interesting to note that this large screen color television demonstration was more satisfactory in picture resolution and detail than any black and white process that I have witnessed to date The explanation may rest in the same phenomena that exists with respect to blowing up 16 mm Kodachrome motion pictures to 35 mm color or black-and-white, which as we all know has been found to be more satisfactory than blowing up 16 mm black-and-white to 35 mm black-and-white A part of this improvement is no doubt due to color contrast as well as density contrast or to the fact that there are three channels, each supplying 525 lines of picture detail, which superimposed give a more effective picture

At the time of that demonstration I said, and I say here, that in my opinion the quality of the picture demonstrated was sufficiently satisfactory for theatre presentation I stated then, and I state now, that there are many bridges to be crossed before color television can be a reality In fact we need to learn how to commercially control and use one channel black and white transmission for large-screen projection before we try to use the three channels required for color Our motion picture experience tells me, and I feel that it should tell you, that we should anticipate a long cycle of black and white picture work prior to anticipating color

I will now discuss the demonstrations which took place during the 62nd semi-annual convention of the Society of Motion Pictures in New York October 20 to 24, inclusive

At the Hotel Pennsylvania the RCA Company installed a standard dipole with ejector type aerial, special television receiver and projection equipment with which they demonstrated instantaneous direct-projection large screen television on a screen 7½ feet high by 10 feet wide The program material used for this demonstration was a part of the regular evening program from the NBC transmitter on the Empire State Building which was fed from a studio in the RCA Building The program was a live-action skit in a set simulating a broadcast studio and was of the informal variety type There were about 700 present at this demonstration and all persons present could see and follow the action quite as well as though same had been projected from 16 mm film Some interference and picture breakup was encountered during the demonstration but in fairness to RCA or any company making an installation of that type, it should be pointed out that if same were a permanent installation, steps could and would be taken to either eliminate or avoid troublesome interferences A steady picture is perfectly feasible in most locations In my opinion the picture as demonstrated would be quite satisfactory for audience enjoyment of sports events and current news items

The instantaneous direct-projection demonstration was immediately followed by a film projection of the same performers The film was made on an Eastman Kodak Television Recording Camera photographing a special RCA kinescope A paper describing this camera and process was presented during the convention and will be published in the Journal of the Society The film also included shots made by television of the World Series and similar events The film had several advantages—the tube being photographed was designed for optimum resolution as compared to a tube giving high-light output and the film when projected had greater contrast and higher illumination of the screen

From the comparative demonstration it was apparent that both systems are perfectly feasible and I should say that both systems will find their respective place in the future I should also guess that the factor of selection will not be technical quality but rather which systems can best meet the showmanship and commercial requirements

Contrary to common belief, there is a real advantage to having a slight delay in the presentation of television pictures It allows time for the announcer to anticipate rather than follow the action If you compare present day newsreel techniques with television techniques, you will be conscious of the fact that in the newsreel the commentator describes what you are going to see, thus heightening the interest, whereas, the television commentator describes that which has already been seen and is obvious

The Kodak film demonstration was followed by a paper and demonstration film prepared and presented by Dr T T Goldsmith of the Allen B Dumont Laboratories As previously mentioned Dr Goldsmith has loaned this film to us for projection following my paper The film includes photographed images accompanied by a narration describing the method and objective of making such pictures This is followed by a picture of President Truman which was made at the Passaic Laboratories of Dumont from a telecast which had been picked up in Washington, D C transmitted by coaxial cable to New York, thence broadcast and picked up at the Dumont Laboratories The dialogue accompanying this picture was recorded on wire and later re-recorded to film The Truman film is followed by a typical commercial television broadcast

The fluorescent material in the image tube had a very fast decay timing The camera photographs two complete scans of the picture, extinguishes for one-half frame during film pull down movement, thence exposes during the last half of a scan, the complete next interlacing scan and the first half of the following scan before extinguishing and repeating the cycle again By this method the camera makes a 24-frame exposure of a thirty frame instantaneous picture and still has time for film pull-down between frames

Captain A. G D West, Past President of the British Cinematographic Society and Director of Cine-Television, Ltd., presented a paper on the subject of large-screen television in England Prior to the war the British installed experimental television equipment in several theatres They are now installing equipment in five or six theatres for direct instantaneous projection of the marriage ceremony of Princess Elizabeth and Lieutenant Philip Mountbatten In regard to large-screen television the British feel that the technical advancement is far ahead of the theatrical understanding of its use They are, therefore, not waiting for technical perfection but are installing the equipment in their theatres so that they will learn its

possibilities and its limitations I congratulate them!

There were many other papers presented at the convention which would be of interest here but as you will be able to read them in the Journal of the Society, I feel I should proceed with my subject

In this discussion I have included these Eastman and Dumont film methods under the general heading of theatre television, I suppose largely because they were so included at the convention and because they were seen on a large screen I must point out, however, that these recording cameras were developed primarily as a tool for television broadcasting. This service was in need of a transcription method of network syndication, program storage and documentation These films will, of course, be used in checking the quality of performances and in selling shows to advertisers The fact that the equipment and techniques developed may have application to theatre television was incidental to their design.

It is interesting to note that while any of us can criticize this 16 mm work as compared to 35 mm entertainment films, these people are fast approaching the accomplishment of their goal In other words, they are rapidly approaching the accomplishment of 16 mm quality

I do not speak derogatorily of 16 mm film for I concur with the group who, in conjunction with television broadcasting to the home, have worked for and gained standardization at 525 lines on a black-and-white picture A very satisfactory picture can and will be put in the home with these standards

I concur with the group who feel that these same standards are satisfactory as a feeler during the novelty period of theatre television for sports, news, etc

On the set of Paramount's "The Long Gray Line" With cameras and lights set for a closeup of Alan Ladd, the star chats with Director of Photography John Seitz, A.S.C., for a brief interval before the camera rolls

I am emphatic in my feeling that the 525-line picture will not be satisfactory for long in the theatre For a given degree of satisfaction it is my feeling that higher resolution will be required for the larger picture I am concerned by the fact that only a little development work has been done and practically none, if any, is in progress to improve the picture quality beyond the 525-line standard Band widths for both radio links and coaxial cable are also being established on a 525-line basis If I am right this may restrict and retard theatre television activity This lack of activity in the interest of theatre television is because the potential user—the theatre—has shown little or no interest in this particular problem.

Theatre television can be transmitted to the theatre by coaxial cable, radio links, and possibly by infra-red beam I do not feel that there will be any problem of gaining privacy, if privacy is necessary The problem is one of determining the best method before the pressure of time forces the industry into the first available method regardless of cost or advantage

During 1945 and 1946 the Society of Motion Picture Engineers appeared before the Federal Communications Commission and in collaboration with the television broadcasting industry obtained parity of right to relay frequencies allocated for television use On petition of other interests the FCC issued public notice No 97615 on October 22, 1946, calling for a hearing and re-allocation of these frequencies to the exclusion of television After a discussion with Mr Eric Johnston, Mr Byron Price, Mr Donald Nelson, Mr Y Frank Freeman and others, the SMPE submitted a brief and again appeared before the FCC at its hearing on February 4th of this year At this hearing the Society received telegraphic support from Mr Johnston and Mr Nelson, also letters and support from Loew's, 20th Century-Fox, Warner Bros, R K O, Paramount and others

It is our hope and belief that favorable action will be handed down. It is also the opinion of those close to this work that the rights to these frequencies will again be challenged unless these frequencies are placed in service

We of the Society feel that the time has come for the motion picture industry to determine the extent of its interest in theatre television and if interested, to establish a program to that end With this thought in mind representatives of the Society, including the writer, have called upon the Motion Picture Association and asked that they coordinate the early thinking in this regard Thus far no action has been taken by the Association but certain of the member companies Warners, 20th Century-Fox and R K O have become ac-

(Continued on Page 29)

If you could
Have your choice
In every film requirement
You'd naturally choose

EASTMAN

and we want you
to know
that when you can't have

EASTMAN

it's only because
almost everybody else
in The Motion Picture Industry
has made the same
wise choice——

We are extending

BRULATOUR SERVICE

in a constant effort
to provide

EASTMAN FILMS

when you need them——

The Cinema Workshop

(For Semi-Professional and Amateur Production)

19. Presenting Your Film

By CHARLES LORING

A completed motion picture—whether it be a documentary, a photoplay or a commercial subject—represents a great deal of time, effort and expense on the part of those who have had a hand in its production But no matter what the subject, the approach or the budget the aim of all films is the same to gain a favorable reaction from the audience

Those who make motion pictures professionally know that it is not enough to take pains in the production of a film, the same care must be exercised in its *presentation* if the audience reaction is to be all that was hoped for An audience will take away with it not necessarily a true evaluation of the quality of the film, but an *impression* of how it looked according to the conditions under which it was presented So important is this psychological impression, that it is worth while for us to devote an entire chapter to the subject of correct presentation and projection of motion pictures

There are many who believe that it is only necessary to thread a film through the projector turn off the lights and start the machine in order to satisfactorily present a film But actually, correct presentation amounts almost to a science in itself It depends upon the nature and size of the audience the equipment available and the room in which the film is to be shown

The Projector

The projector is the most important element in the presentation of a picture, since it is the actual mechanical means whereby an audience is enabled to view the film Its selection, operation and maintenance therefore becomes of primary importance to those concerned

In selecting a projector, there are a number of important points to be taken into consideration A careful analysis of the several excellent machines on the market will reveal to the prospective purchaser exactly what unit and lens will best suit his needs and the requirements of his audience Generally speaking, *you get what you pay for* The less expensive machines put out by the more reputable manufacturers will usually do very nicely for the showing of home movies to small living room audiences On the other hand, the presentation of professional sound and color movies before large audiences will require more versatile and therefore more *costly* equipment

The selection of a sound projector (and it is presumed that *sound* is desired) will depend primarily upon the average size of the expected audiences Starting at the bottom, we find that the present market offers a variety of miniature, light-weight portable projectors which are especially desirable because of their compactness and the ease with which they can be carried about and set up These machines, which usually consist of one case containing both projector and loudspeaker, were designed primarily to show pictures to groups of from 1 to 15 people

They are ideal for the traveling representative who wishes to take his projector right into a client's office and set it up on his desk The unit contains a small screen about 1' by 1'2 onto which a brilliant image can be thrown from a distance of about six feet, even in a room which is not completley darkened A larger but dimmer image may be thrown onto a standard screen by moving the projector farther back Since the bulb in this class of projectors averages only 300 watts, however, the brightness of the image falls off sharply when the projector is set up too fat from the screen

The second class of projectors, known as *standard* units, are those whose light source ranges from 500 to 1000 watts, and which usually consist of a projector and loudspeaker in two separate cases This class of projector is the most popular for showing to average audiences since it combines adequate brilliance and sound fidelity with convenient portability Depending upon which lens is used, it is suitable for showing films before audiences numbering up to 200 people

Most projectors of this class come equipped with a standard 2 inch lens although other lenses ranging from 5/8 inch to 4 inches are available for use under special projection conditions The 5/8 inch wide-angle lens enables you to project the largest possible image with the greatest degree of brilliance since the projector is placed relatively close to the screen

The third group consists of high intensity carbon-arc projectors for use in large auditoriums where films are to be projected before audiences of several hundred people This truly professional type of projector enables the projectionist to fill a full-sized standard theatre screen with a brilliant 16 mm image Such machines are, however, several times more costly than standard 16 mm projectors, and a good deal less portable Moreover, special transformers must be used to provide the increased amount of current necessary for the carbon arcs

On the basis of the above information, it is wise to select your projector according to the size of the average audience to which you will want to appeal Other factors to be considered are sound fidelity, simplicity of threading, ruggedness of construction (an important factor when machines are to be transported frequently), and availability of spare parts

The Screen

The selection of a screen is second in importance only to the selection of a projector, since the quality of the reflecting surface has much to do with how the film will look when projected For home movies, almost any surface such as a wall or sheet will do nicely, but if a film is to be projected before a large audience in a professional manner, a screen of good quality should be used

We shall consider first portable screens of the type that can be rolled up and transported from place to place These are manufactured with folding stands so that they can be conveniently set up anywhere or with hangers so that they can be hung up on a wall They come in a variety of sizes and surfaces

One of the most popular screens is the type having a flat white painted surface which provides an average amount of reflectability for normal throws The principle advantage of this surface is its durability and the fact that it can usually be washed with soap and water when it gets soiled A second type is that which is coated with silver paint, a surface having a greater degree of reflecting power than the white paint when new, but which is somewhat less durable The average silver screen can, however, be re-surfaced when it becomes dull or tarnished

The third, and currently most popular type is the *beaded* screen which, as the name implies, is a white surface coated with minute colorless glass particles This type of screen provides a maximum of brilliance, since the glass particles reflect a high percentage of the projected light The one disadvantage is that the beads tend to fall off of the screen with continued use, and the base must be re-surfaced periodically

For permanent installations the perforated screen is widely used, since the speaker can be placed behind it and the sound will seem to come directly from the screen Any one of the other surfaces

—white, silver or beaded—can, however, be satisfactorily used if the speaker is to be placed outside of the screen

The Auditorium

We shall call the room in which the film is projected the *auditorium* even though it is often considerably less imposing than this title would suggest Usually, the projectionist has very little control over the type of room which is to serve as his auditorium—but let us suppose that he *does* have a choice, in order that we may examine the ideal conditions for the projection of a film

Firstly, the auditorium should be suited to the size of the audience A room that is too small is obviously uncomfortable for all concerned A room that is very much too large will often result in undesirable sound reverberations as well as a loss of the intimate atmosphere which so often contributes to the most favorable audience reaction

A room which is free of pillars, posts or other obstructions is to be preferred over one in which such obstacles might interfere with the view of the screen A room with proper air-conditioning and temperature control will aid greatly in putting the audience at ease

Any auditorium selected for the projection of a film should be capable of being darkened to the greatest possible degree, since there is nothing more disturbing than the "washed out" image which results when stray light filters into the room In the daytime, venetian blinds with drapes at the sides will usually shut out most of the light, although curtains of opaque material that can be drawn over the windows give an even better result

A sufficient number of comfortable chairs should be provided, and these should be staggered so that no member of the audience will be forced to look around his neighbor's head in order to see the screen Ash trays should be provided whenever possible for those who wish to smoke while the film is being projected

In a permanent auditorium, exit lights should be installed and it is always a good idea to inform the audience where exits are located in case any doubt should exist

Setting Up

The first step in setting up is to decide the relative positions of audience, projector, speaker and screen These locations will usually depend upon the physical geography of the auditorium, and should be plotted to make the most effective possible use of the available space

Whenever possible, the projector should be located *behind* the audience (instead of between them and the screen) so that the noise from the motor will not interfere too greatly with the reception from the speaker up front Always leave a space between the projector and the back wall so that late comers will not have to pass in front of the lens in order to get to their seats Fill your screen with the image whenever possible, but do not move your projector back so far that too much brilliance is lost The distance from projector to screen will depend upon the size of the audience as well as upon the focal-length of the projector lens you are using

In order to insure visibility from all parts of the auditorium, the screen should be mounted so that it is several feet above the heads of those sitting in the front row For best effect, the speaker should be placed just below the screen or directly to one side of it *Never mount the speaker behind the audience.* If you have dual speakers they may be mounted on either side of the screen and beamed down toward the audience. Do not place the speaker on the floor, since the sound will be muffled by the audience Place it on a chair table, or stand that is even higher The closer the speaker can be placed to the screen, the more natural will be the illusion of direct sound

In arranging your chairs, be sure to leave a sufficient clear path for the projector beam, so that no one's head will interfere with the image Before the audience appears, have your machine completely set up, focused and framed It is quite unprofessional to have to make any mechanical adjustments once the audience has arrived Be sure that your extension cords are arranged out of the way so that the plug cannot be kicked out of the wall in the dark Before threading the film through the projector, clean the aperture gate carefully with a camel's hair brush so that it is free of lint and grit

There are several factors to be considered in regulating your sound First, be sure you have your amplifier switch on so that the tubes will have time to "warm up before you start to run the film In setting your volume, remember that an audience will absorb a certain amount of the sound and that you will need more volume in a full room than in an empty one Allow for this factor in regulating your volume before the audience arrives

Regulate the *tone* of your sound according to the acoustics of your auditorium and the size of the audience In a room lined with sound-absorbent facing or draperies, the tone will seem relatively 'dead' unless you adjust it for more *treble* A room with hard smooth walls, floor and ceiling will create harsh reverberations unless you regulate your tone more toward the *bass* side A well-filled room will require more *treble* than one which is partially filled

In running your film, have someone stationed near the light switch so that you will be able to start the projector as soon as the auditorium has been darkened.

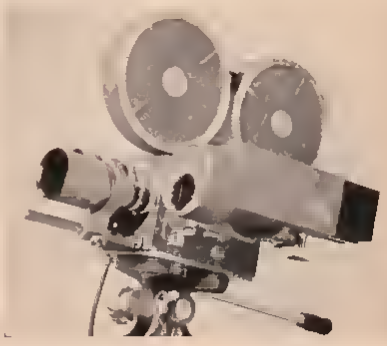
With the NEW

MAURER

16-mm

Professional

Motion Picture Camera



— you get these *exclusive* features

- **235° Shutter** — shoot with ¼ less light
- **Critical Focusing System** — you'll never shoot another picture that's not sharp
- **Largest and Clearest View Finder** — anastigmatically corrected coated optics, automatic parallax correction
- **Clear Glass Viewing System** — see directly through the taking lens, even if stopped down to f/22
- **Automatic Fades** — 2-speed automatic fade device, 40 frames and 64 frames, as well as manual fades
- **Gear-Driven Magazines** — 200 ft., 400 ft., or 1200 ft. capacity.

16mm maurer

J. A. MAURER, INC.

3707 31st Street, Long Island City 1, N. Y.

PROFESSIONAL MOTION PICTURE CAMERAS AND RECORDING EQUIPMENT
FOR THE PRODUCTION OF INDUSTRIAL EDUCATIONAL AND TRAINING FILMS

Turn on your motor first and then turn on your lamp as soon as you see the end of the leader pass through the gate Always thread your machine so that you will start back on the leader a bit, in order that your projector may gain sufficient speed for the correct rendition of the opening fanfare of sound.

When the film has ended turn off your lamp just as the end title fades out, then turn off your sound as the music ends, and finally turn off your motor as the tail end of the film clears the gate Instruct your man at the auditorium light switch to turn on the lights as soon as you cut your projector lamp

It is necessary here to say just a bit about proper maintenance of projector and film The projector gate should be carefully cleaned first with a lintless cloth and then with a camel's hair brush, before and after each showing The lens should be cleaned with a liquid cleaner and lens tissue after every three or four screenings The projector should be oiled periodically as per the recommendations of the manufacturer Always carry a spare projection bulb, fuse, take-up spring and exciter lamp in your projector case Check your equipment carefully before setting out to make sure that you have a take-up reel of sufficient capacity as well as an extra extension cord It is also wise to carry with you a small film splicer

The film itself should be carefully cleaned with an approved liquid film cleaner after every two or three showings It should be checked carefully for breaks, bad splices and torn sprocket holes after every showing, and these should be promptly repaired Between showings, it is wise to store the film in a dust free metal container Make sure that only a competent operator is allowed to project your film, since a great deal of costly damage to the print can result if it is improperly threaded into the projector

The separate points relative to the presentation of a picture may seem trivial, but they can greatly influence an audience's impression of your film one way or the other The audience will evaluate the film in terms of how it looked when presented for *them* Give your film a 'break' by seeing to it that projection conditions are as nearly ideal as you can possibly make them

NEXT ISSUE Part 20—*Distributing Your Film*

Phelps Again Heads PSA

Charles B Phelps, Jr of Grosse Point, Michigan, has been re-elected president of the Photographic Society of America to serve the 1947-49 term John G Mulder and Victor H Scales function as vice presidents, Mrs Anne Pilger Dewey was re elected secretary and Charles Heller was re-elected treasurer

EVERYTHING PHOTOGRAPHIC AND CINEMATIC

FOR PROFESSIONAL AND AMATEUR

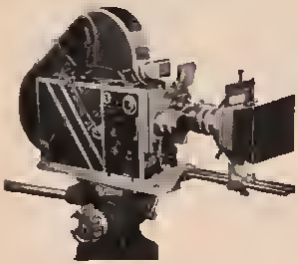
The World's Largest Variety of Cameras and Projectors Studio and Laboratory Equipment with Latest Improvements Used in the Hollywood Studios New and Used BARGAINS

HOLLYWOOD CAMERA EXCHANGE

1600 CAHUENGA BOULEVARD
HO-3651 • Hollywood, Calif • Cable Hocamex

Professional Type Combination

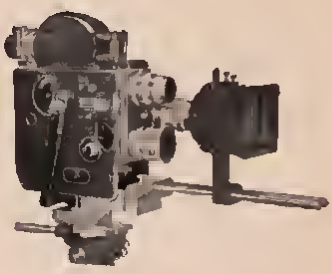
SUNSHADE and FILTER HOLDER



The Sunshade-Filter Holder is supported by a double arm bracket. This attaches to a plate which you can fasten on to the base of your camera where it can remain at all times if you desire. The Sunshade-Filter Holder is demountable into 3 small units which, when not being used, fit into your camera carrying case

For L K Cine Special, Bolex, Filmo and other fine 16mm cameras It resembles the professional 35mm type Sunshade Filter Holders and Matte Box generally used with professional 35mm cameras

Designed for use with all popular types of 16mm cameras, the 'Professional Junior" Sunshade and Filter Holder holds two 2" square glass filters, also a 2½" round Pola Screen with handle which can be rotated for correct polarization By using our Sunshade and Filter Holder you will not require filters of various sizes as the 2" square filter will cover all lenses from 15mm to 6" telephoto



Compact, simple to assemble or dismount, the entire Sunshade-Filter Holder and 2 filter holders which are supplied are precision-made of non-corroding metals Every serious cameraman appreciates the advantages that accrue when a fine Sunshade-Filter Holder like this is used

★

Manufactured exclusively by the makers of "Professional Junior" Tripods and other fine camera accessories.

FRANK C. ZUCKER
CAMERA EQUIPMENT CO.
1600 BROADWAY NEW YORK CITY

Order your Sunshade and Filter Holder today. And also ask for our complete catalog

Pleasing, natural, exciting . . .

IN 50 frames or so, she'll be out on the ice, skating fast

And then it's up to you to get a pleasing, natural-looking, exciting movie sequence of her

Almost any film you use will "catch" her—but Ansco Hypan Reversible Film will help you get really outstanding movies.

Hypan's speed allows you to stop the lens diaphragm way down for greater depth of field — to get a larger part of each frame in sharp focus

And Hypan's brilliant gradation scale gives crisp, bright screen images It helps put your movies in the way-above-average class

Finally, Hypan's fine grain emulsion gives sharper, clearer pictures—easier for your audience to see, and enjoy Remember, Ansco Hypan Film At your dealer's **Ansco, Binghamton, New York.** A Division of General Aniline & Film Corporation

TIPS ON TITLES Try this simple titling trick for your snow sequences Break up twigs and lay them in the snow, forming the letters of your title.

ASK FOR

Ansco

HYPAN FILM
8 and 16mm

AMONG THE MOVIE CLUBS

Milwaukee Amateur

Annual exhibition of contest films was staged by Amateur Movie Society of Milwaukee at the Red Arrow Club on November 12 and 26 Club members voted on the entries with the following results 16 mm Division—first prize 'The Magic Carpet, by Mr and Mrs William Rheingans, second "Blue Horizons ' by Walter Chappelle third ' As the Spirit Moves,'" by Mrs Erma Niedermeyer, fourth "Our Trip West, by Glen Evans 8 mm Division—first No Soap," by Mrs DeLylia Mortag, second "Three Fishermen," by Joseph Salerno, third "Speed Thrills," by Earl Peychal, fourth "Torcheat," by Mirley Bready

Members nominated for officers for the coming year include president, Richard J Franzel and Robert E Lees, vice president, Fred W Domrose and Robert H Jansen, treasurer, Howard Petschbacker and Harold F Sonneman, secretary, Mrs W Chappelle and Miss Naomi Gauger

Los Angeles Eight

Thirteenth annual banquet of the Los Angeles 8 mm Club was held on evening of December 6 at the Breakfast Club with 162 members and guests attending Highlights of the evening were presentation of incoming officers, announcement of winners in annual contest, and presentation of trophies and prizes

Sylvia Farley won first prize in the film contest with her 'Little Women', with Mildred Caldwell second for "Green Gold,' and Milton R Armstrong third, for 'Memories Linger On Armstrong also received the Horton perpetual trophy for the best vacation picture of the year Contest drew 20 entries for the 15 prizes donated

New York Metropolitan

Film program for the November 20 meeting of Metropolitan Motion Picture Club of New York, held at Hotel Pennsylvania, comprised "Summer Serenade," by Charles Benjamin, "Temagami Fishing," by Fred D Koehler, Jr. and "Wonderland Alaska, by Robert Allyn Rose Latter subject was presented with background music and commentary on magnetic tape

Washington Cinematographers

First group of members films entered in the annual club contest were exhibited at the November 17th meeting of Washington (D C) Society of Amateur Cinematographers Entries included City of Destiny, by Ted Sarchin, ' Trees of Autumn by Don Sutherland, "Dun Loring Cotillions of 1947," by Joe Gray, and Jewels in the Sky," by Harold Wagar

Utah Cine Arts

Al Morton, founder member of Utah Cine Arts Club of Salt Lake City, was the winner of the Hiram Percy Maxim Memorial Award for his color film, "Adventure on the Colorado," a picture record of his pleasure trip down the Colorado River last summer Morton has frequently received recognition for his outstanding amateur films in the past

Annual meeting and election of officers of Utah Cine Arts was held on December 10 at the Newhouse Hotel with films exhibited including 'Little Co-ed,' by Mrs. Al Morton, "Sun Valley Holiday, courtesy Union Pacific, and two comedy films

Los Angeles Cinema

Annual banquet meeting of Los Angeles Cinema Club was held on evening of December 1 at Los Angeles Breakfast Club with nearly 450 members and guests attending In addition to installation of officers for the coming year, headed by new president, James H Mitchell, announcement was made of the winners in club's annual contest for silent and sound subjects In the silent division, Stan Midgeley was adjudged the winner for his Cycling Through Yellowstone", with Charles Peters taking second place for his "Tripoding Through the Canadian Rockies", "Timber, by William J Keim, took third, and Mrs Mildred Caldwell's "In Our Garden' was fourth Jack Helstowsky won first prize in the sound division with "Unmarried Husband,' and Aloha Time," by Mrs E B Kellam won second spot The first two prize winners were exhibited at the meeting Mr and Mrs Jack Shandler donated $100 as prizes, which was split between the two winners

President Mitchell disclosed that the club roster comprised total of 314 members, and disclosed that meetings of the coming year would be balanced to include a technical session with the regular film programs

Brooklyn Amateur

Terry Manos was featured guest of the December 3 meeting of Brooklyn Amateur Cine Club held at the Neighborhood Club, and exhibited his Farm Frolics,' 'It's All Over,' and "Terry s Adventures' Also on the program was Manny Lovitch's prize-winner, "Spring Interludes, and repeat showing of General Electric's film on indoor lighting, 'Family Album "

At the December 17 meeting, Desert Victory" consumed major portion of the program, with new member, George Wahl, also showing his ' New York Oddities'

New York Eight

First prize in annual film contest of New York Eight MM Motion Picture Club was awarded to George Valentine for his "Scenario for Three " Edward Roesken took second place with ' Down on the Farm", while Ben Spanier's "Cynthia Is Freed' tabbed third honors Next contest to close at February meeting will be devoted to entries not previously submitted in a contest by members

New feature of club meetings is The Hour of Gab," with members gathering an hour before start of sessions for informal group discussions of filming problems, equipment and exchange of ideas

In addition to a symposium on "The Material of Which a Movie Is Made,' film program for the December 15 meeting comprised "Inside Story of the Outside Cover," by George Valentine, and "Week End Estate ' by Lou Lind

Philadelphia Cinema

Christmas subjects appropriately composed the film program of the December 9 meeting of Philadelphia Cinema Club held in Little Theatre of Franklin Institute Program included Christmas Inside and Out, by Walter J Brobyn "Christmas Time at Our House," by Henry DeLuca and "Chrisrmas With Eileen, Jim and Bill," by James J Haggerty John Mansute exhibited his film, ' Lullaby", and a demonstration was given of the Webster wire recordet, with musical selections recorded by Miss Claire Rasch and Miss Betty Jarvis and immediately played back for the audience

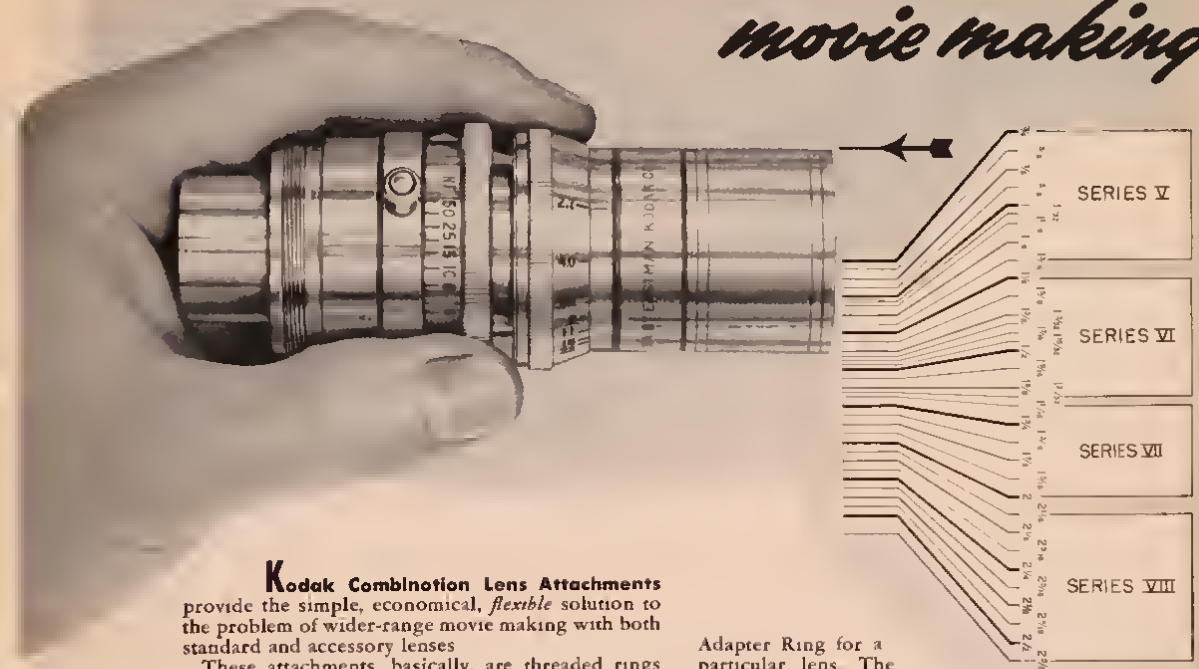
Alhambra La Casa

December 15 meeting of La Casa Movie Club of Alhambra, Calif. held at the YMCA, provided a fine program of member films including "Home Christmas," by A N Bierkle, 'Catalina Bird Farm and Seal Rock," by Mrs James B Lewis, "Christmas at Our House," by Mr and Mrs F A Carnahan, "No Reservations Required," by Mr and Mrs R A Battles, and " 'Twas About Christmas," by Charles J Ross

San Francisco Cinema

Annual dinner meeting and election of officers for Cinema Club of San Francisco was held on December 16 at the Women s City Club Officers submitted by the nominating committee were president, Ben Nichols, vice president, Ben Hechinger, secretary, Mrs Violet Neuenberg, treasurer, Lloyd Littleton, directors-at-large, Leon Gagne, Dave Redfield and Charles D Hudson Film feature of the evening was Gagne's 'Everchanging California "

Fit your lenses for wider-range movie making



Kodak Combination Lens Attachments provide the simple, economical, *flexible* solution to the problem of wider-range movie making with both standard and accessory lenses

These attachments, basically, are threaded rings you screw together to form mounts for filters, close-up lenses, and Pola-Screens. They enable you to use unmounted elements singly or in any desired combination . . permit quick interchange or removal of elements at any time Through a wide choice of Adapter Rings you can fit the assembled attachments to most 8mm and 16mm camera lenses, filters in W or Z Mounts being available for other lenses

The above illustration shows how to select attachments. The scale indicates the lens-barrel diameter and the series number by which you order the Adapter Ring for a particular lens. The series number is all you need for the other attachments. Once you've selected the necessary Adapter Rings, chances are you can employ one set of attachments for several of your lenses.

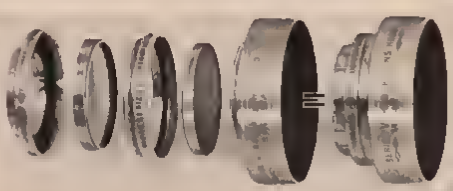
Using this scale, why not "try your lenses on for size" right now? Your Kodak dealer will be glad to help you with the final fitting and to recommend a suitable assortment of attachments for your particular filming requirements. Plan on seeing him soon.

FILTERS, CLOSE-UP LENSES, POLA-SCREENS, LENS HOODS — "TAILOR-MADE"

Adapter Ring, Filter Disk, and Adapter Ring Insert.

Here a Lens Hood "doubles" as the retaining element.

A Pola-Screen is easily added to the assembly.



A Portra Lens takes the place of the Pola-Screen.

EASTMAN KODAK COMPANY, Rochester 4, N. Y.

KODAK IS A TRADE MARK

Koda

"Adventures Of Rudy Crude"

LIVE ACTION and CARTOON for COMMERCIAL 16MM. FILM

by B. F. FITZGERALD

THERE'S a new cartoon character abroad on the screen these days His name is *Rudy Crude,* and he's an animated drop of unrefined oil who romps his way through a 16 mm color-sound film just completed for the Mid-Continent Petroleum Corp., world's leading producers of 100% paraffin motor oils

The film, titled Adventures of Rudy Crude," combines 10 minutes of cartoon animation with 26 minutes of live action to tell a complete story of the refining of motor oil from the ground to the car Now in release, it is winning enthusiastic audience reaction because of the ingenious way in which humorous cartoon sequences have been used to tell an essentially serious technical story

The film was produced for Mid-Continent by Bud Woods Productions, Inc., of Tulsa, Oklahoma It was supervised by L C Bud Woods, war-time personal cameraman to Gen Omar N Bradley, and filmed by Herb A Lightman, Hollywood writer director The production approach goes beyond the scope of the usual industrial film in that it makes skillful use of many studio camera and direction techniques

How It All Began

Rudy Crude was born several months ago when advertising executives of Mid-Continent were casting about for the most interesting possible way to tell the story of oil refining They realized that a series of technical processes, no matter how spectacularly photographed, could not hope to sustain audience-attention for a full half hour They tossed the problem into the lap of the Woods organization, which came up with the fascinating little character dubbed Rudy Crude ' Further story conferences developed *"Ruby"* Crude, a sexy little girl drop of oil, and seven little squirts ' who were to appear in due time to represent (as Rudy's and Ruby's offspring) the various fractions derived from the crude in the distillation process

By the time the script was developed, it was decided that 10 out of a total of 36 minutes of the film's running time would be devoted to the hilarious antics of these appealing cartoon characters The remainder of the film was to show by means of radically original camera treatment, the story of oil refining—beginning with the underground exploration for petroleum by seismograph crews, continuing on through every phase of testing and refining at the giant Mid-Continent Refinery, and ending up with shots of the oil being used by motorists, farmers and industries throughout the world

In order to put this blueprint of production into action, it was necessary to reorganize and expand the Bud Woods Animation Department Two former Disney animators were engaged to head the department and train other artists in the complicated business of cartoon production Of the several hundred artists interviewed, only a dozen were found to have the requisite talents for this exacting form of art

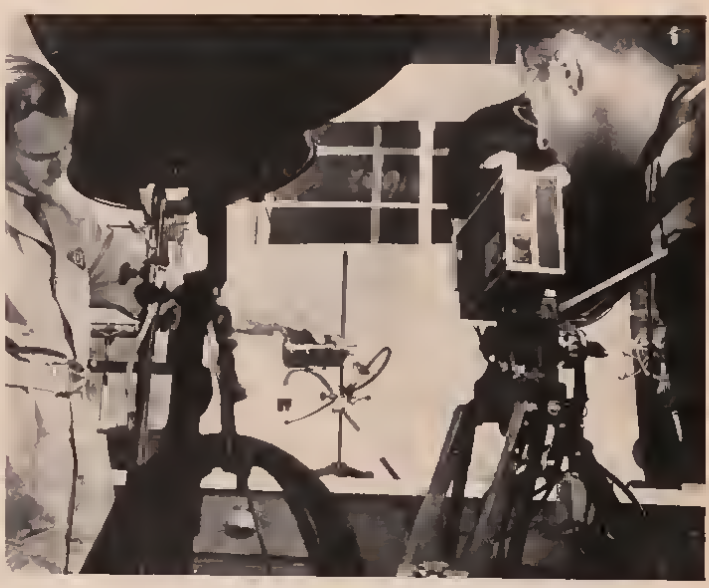
In addition, special animating stands and equipment were devised to insure accurate registration and photography of the thousands of individual paintings that go into the production of an animated cartoon These devices were specially designed and precisely machined to specifications set up by the animation and camera staffs

It took 14,692 separate paintings, 16,502 man hours of work by artists, and 5,197 miles of travel by camera crews to such locations as New Orleans, Kansas City, Southern Oklahoma, West Texas, etc.—in order to put the story of *Rudy Crude* on film

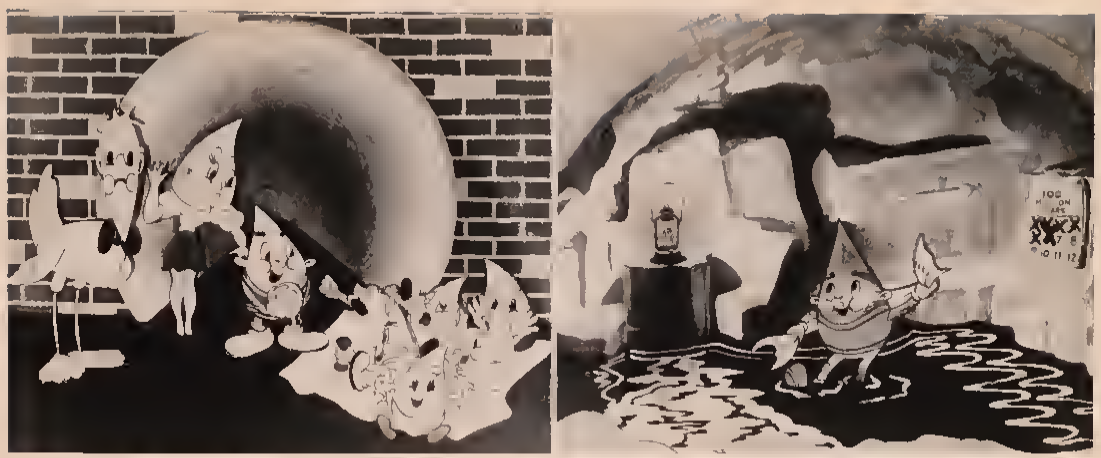
A Romance of Oil

'Adventures of Rudy Crude blends fantasy, documentary approach and studio production technique to portray a romance of oil refining Rudy, a cheerful little drop shaped character with a stubble and patched-up sweater personifies the rich 100% paraffin base crudes from which D-X oil is refined By following his antics and interspersing them with dramatic live-action sequences, the complete story of oil exploration and refining is told

The picture fades in with a long shot of oil derricks in a producing field The main title rises out of the ground to superimpose itself on the scene Then the camera begins to slowly move down through the earth and we see the produc-



The director checks a set-up showing one of the laboratory demonstrations used to explain technical processes of oil refining in "Adventures of Rudy Crude." Filmed in glowing color the picture utilizes many studio production techniques



Cartoon scenes from "Advantures of Rudy Crude," 16 mm color-sound film on the refining of motor oil, produced by Bud Woods Productions Inc., Tulsa Oklahoma (Left) Ruby Crude and the stock conspire to present Rudy (center) with a little of ruby oil drops representing the various fractions distilled from the crude (Right) In his underground cavern Rudy takes a bath in a pool of oil, dries himself off to the rhythm of a conga

tion credits carved out of the various strata of rock. A subtitle tells us that Once upon a time, far, far below the surface of the earth, there lived a little DROP OF OIL As the camera passes the word DROP, a golden drop of oil begins to ooze out of a crack in the rocks Falling from one word to another, it develops arms and legs and a cheerful little face Finally it falls down into an underground cavern complete with flickering candle and a calendar showing the ages of time in units of 100 million years

Rudy, having fallen into the pool of oil on the floor of the cave, dries himself with a towel and breaks into a conga routine He then chalks up another 100 million years on the calendar, as the narrator confides that three sinister villains are at that moment plotting to get Rudy We see three devilish looking characters bathed in a red glow with flames leaping behind them as they plot and plan As the narrator explains that they aren't really villains at all, but geologists plotting the exploration of oil, the scene dissolves to normal lighting of three scientists grouped around a geological survey map By means of an overhead elevator shot, the camera moves down through the map and out into the field where seismograph crews are setting off charges of dynamite as miniature 'earthquakes' to plot the underground structure of the earth

When oil is located, actual drilling begins, and we then descend once more to Rudy's cave just as the bit of the drill breaks through and raises Cain with Rudy's privacy. Finding no more rocks, the drill turns into a hand which gropes around until it discovers the oil pool. It is then hauled up and a pipe comes down to suck the oil up Rudy, by now thoroughly scared, cowers behind a rock The casing, however, changes into a bloodhound, sniffs him out, and then (changing into a vacuum cleaner) sucks him up to the surface

At this point, the treatment returns to live-action showing the complex pipeline set up, the various field stations, and the intricate telephone network that links the pumping stations with the refinery The batch of crude to which Rudy belongs receives the go-ahead signal to start its journey to the refinery and we see our hero cheerfully skating through a pipeline

(Left) A section of the cartoon department of Bud Woods Productions Inc shows animators at work on "Advantures of Rudy Crude." The film features 10 minutes of cartoon animation out of a total running time of 36 minutes. (Center) A background artist paints lengths of "pipeline" scenery used as moving backgrounds in the film (Right) A cameraman shoots a section of the film's running main title, total length of which was 18 feet Shown is one of the special animation stands designed for the picture

which contains hot-dog stands, shops, theatres and gas stations He has a brief encounter with a nauseous little character called "Droopy Crude,' who represents the thin, low quality crudes that are barred from the line

By and by he discovers Ruby, a streamlined little girl drop of oil whose well-rounded figure makes his eyes bug out and then turns him into a panting wolf. She, however, is a moral little lady who likes Rudy fine, but will permit no familiarities until she has that ring on her finger To satisfy both the lady and the censors, he allows himself to be dragged off to the "Pipeline Parson" for a proper wedding ceremony, after which the newlyweds continue on toward the refinery

The huge Mid-Continent Refinery is introduced with a sweeping panoramic shot that shows the 800 acres of refinery towers looming against the modern skyline of Tulsa, Oklahoma This dissolves to a montage of spectacular angle shots of the refinery structures and equipment, finally centering on the first of the refining processes where Rudy is discovered sweating out the flames of the giant preheater furnace Right about then, Ruby and the stork conspire to present him with seven baby drops of oil which represent the various fractions distilled from the crude

The camera then follows Rudy and Ruby and their little squirts through the fractionating tower, to show exactly how crude is broken down into gasoline, naphtha, kerosene, fuel oil, and light, medium and heavy motor oils The bulk of the picture from that point on takes up the many technical processes involved, blending live-action with riotous sequences of Rudy and the kids as they get polished up for the motors of America

An Original Slant

What sets 'Rudy Crude distinctly apart from the usual dry-as-dust commercial film is the fact that, besides telling a complex technical story, it manages to provide 36 minutes of walloping good entertainment Furthermore, while making complicated processes thoroughly understandable to the layman, it does not "talk down" to the oil engineer

This middle-of-the-road technique is the result of a pre-planned approach and careful scripting Each intricate process is introduced by a cartoon sequence which burlesques the operation For instance, the de waxing process shows Rudy pulling hugs blobs of wax out of his youngsters eats, the sequence in which additives are blended with the oil has him battling to make the kids take their vitamins Each actual operation inside the refinery is then shown in live-action, and further explanation is accomplished through simplified lab demonstrations which break all the technicalities down into easily understandable language

Gags for the cartoon sequences resulted from a series of spirited story conferences, during which broad comedy was slanted to tell the technical story The script for these sequences consisted of exposure sheets which broke every second of action down into 24 separate drawings As each sequence was drawn, it was filmed in black and white 'rough' form to check the smoothness of the action Finally, the cells were inked, painted and photographed, one by one, against a series of colorful and humorous backgrounds

The live-action portions of the film were precisely scripted, with each scene described in detail and accompanied with a frame sketch of the composition Transitions (such as cuts, dissolves, wipes and fades) were carefully selected to link the various sequences of the story tightly together As a result, the film moves along at a lively pace with perfect continuity

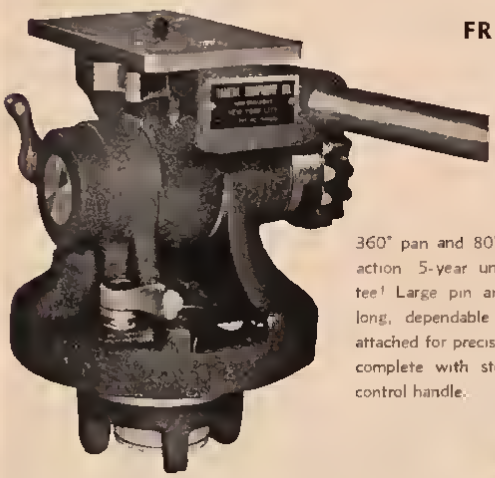
In filming the story, a great deal of attention was paid to *color direction* Not only the cartoon sequences, but the live action portions as well were designed to make the most dramatic use of color In line with this approach, many units of the refinery were specially repainted to conform with effects planned by the director

Super Smooth Pan and Tilt

with the

"PROFESSIONAL JUNIOR"

FRICTION TYPE TRIPOD



360° pan and 80° tilt smooth-as-silk action 5-year unconditional guarantee! Large pin and trunnion assures long, dependable service "T" level attached for precision accuracy Comes complete with steel rubber-gripped control handle.

"Professional Junior" friction removable head interchangeable with Geared Pan and Tilt tripod head Both fit 'Professional Junior" standard tripod base, "Hi Hat,' and 'Baby' all-metal tripod base Top plate of each takes 16mm E K Cine Special, with or without motor, 35mm DeVry, B & G Eyemo, with or without motor and 400' magazine and with or without alignment gauge, any type of 16mm hand-held camera, Speed Graphic or 8x10 View, and other still cameras

FREE new 8-page illustrated catalog Describes 15 superb products Write for a copy today

FRANK C ZUCKER
CAMERA EQUIPMENT CO.
1600 BROADWAY NEW YORK CITY

This is the first time such pains have been taken to "glamorize" a drop of oil

The Camera Scores a Hit

In a generally excellent production, the beautiful live-action photography of "Rudy Crude" manages to stand out as the film's most striking feature The camera-work shows a clean, modern approach that is emphatic as well as artistic It takes fine advantage of the strong compositions which a refinery offers Dramatic interior lighting lends real pictorial interest to processes that might otherwise have seemed commonplace The use of colored light is especially well-handled.

Camera crews working on the picture encountered many unique photographic problems which had to be solved by expedients that are not in any of the books

The script called for a sequence showing the interior of the blazing pre-heater furnace, with huge jets of flame shooting the length of the structure The shots taken inside this furnace are among the most spectacular in the entire film but special precautions had to be taken to keep the intense heat from buckling the film and melting the cement between the lens elements

During the filming of oil drilling sequences in the field, cameramen had to climb a narrow steel ladder 180 feet to the top of an oil derrick, with their cameras slung around their necks At the top, the operating cameraman lowered his body into the well of the tower and hung out into space with the camera while assistants sat on his legs to keep him from falling in

In one refinery sequence, the crew was called upon to shoot a close-up inside a huge revolving drum that was completely enclosed except for tiny glass peepholes Getting enough light into the tank to make a color exposure of the moving drum presented an almost insurmountable problem—one which was finally solved by dropping glass-shielded floodlights on cords down through the peepholes

Each composition in the film was designed both for artistic effect and to show the subject most clearly. Wide-angle shots and low camera angles give the photography a dramatic quality, while extreme close-ups define even the smallest details The moving camera is used very skillfully and a number of complex *elevator* and *dolly* shots add real movement to the story

The majority of the film's footage was interior and a great deal of light was required to illuminate some of the huge sets Special transformers had to be installed to handle the electrical load demanded by the numerous lighting units Careful regulation of *color temperature* under widely varying conditions (during which outdoor and artificial light were frequently mixed) kept the color quality consistent throughout

The film was edited with a pace which complements the active style of the photography *Montage* is used to good advantage, and the story moves along with a tempo that keeps audience interest high. An excellent original musical score by Emil Velazco is perfectly keyed with the changing action, while clever sound effects and deft narration further enhance the pictorial presentation of the subject

The film was recently given a Hollywood premiere at the *Orpheum*, Tulsa's largest downtown theatre—a special 16 mm arc projector being used to fill the huge screen "Adventures of Rudy Crude has been booked for showing before numerous technical societies, civic clubs, schools and colleges—as well as for 500 D-X dealer meetings throughout the Mid-Continent area (which covers 18 states) Reviewers have called it the most interesting color sound movie ever produced on the oil industry"

S. O. S. Cinema Supply Corp. Adds Production Equipment

S O S Cinema Supply Corporation of New York now has a well-organized department of motion picture production equipment, which includes studio, recording and laboratory apparatus Latter includes production cameras, blimps, rotambulators, cranes, dollies, klieglites, background process projectors, translucent screens, recorders, galvanometers, moviolas, sound printers and complete developing machines Company maintains an export department to take care of foreign customers

Victor Projectors Stolen

The Chicago Police Department has reported the following Victor 16 mm Model 55 Lite-Weight projectors stolen from a motor freight carrier in the Chicago area

253956, 255002, 255012, 255013, 255017, 255019, 255021, 255024, 255043, 255044, 255045, 255046, 255047, 255048, 255049, 255050, 255058, 255064, 255066, 255067, 255069, 255085, 255087, 255165

Any trace of these stolen machines should be reported to Chicago Police Department or Victor Animatograph Corporation, Davenport, Iowa

Film Defect Indicator From Bell & Howell

New film defect indicator is being introduced by Bell & Howell, designed for rapid and thorough mechanical inspection of 16 mm sound and silent film perforations Product, entirely different from similar device offered before the war, will greatly aid film inspection by film libraries, laboratories, and advanced amateurs

Tilting Films In Demand

Bardwell & McAlister, Inc, Hollywood manufacturers of the Mult-Efex Titler, report that the demand for their 300 foot 16 mm color film which demonstrates how the elaborate title effects of professional motion pictures are made, is increasing sharply

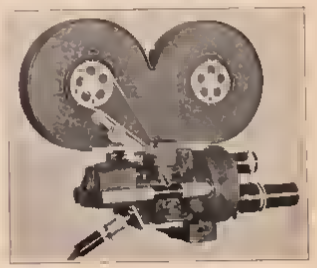
This film demonstrates how such effects as zooms, fadeouts, runarounds, forward and backs, flip flops and many other special titles employed in the major studios, may be duplicated by the amateur with a Mult-Efex

The film is available on request to all camera clubs and dealers from the manufacturers or any of the following distributors Atel, Inc, St Louis, Missouri, Craig Movie Supply, Los Angeles, California, Eastern Photo Supply, Boston Mass, Eastman Kodak Stores Co, Chicago, Illinois, Eastman Kodak Stores, Inc, Los Angeles, California, Eastman Kodak Stores, Inc, New York City, Hornstein Photo Sales, Chicago Illinois, Raygram Corp, New York City, and Willoughby's, New York City

S.O.S. Specials of the Month

Two Wall 35mm Studio Cameras

Fox Movietone Recording Models



Here's a Complete Unit—Ready to Go—½ **PRICE**

WALL STUDIO CAMERA with B & H silenced shuttle 7 lenses Mitchell type viewfinder sunshade & matt box 12V motor Akalay Gyro tripod new Modulite galvanometer amplifiers mike batteries, cables & trunks entirely rebuilt **$5,475**

Here's Another Combination Outfit for Even Less Money

WALL STUDIO CAMERA with B & H silenced shuttle 5 lenses direct focusing tube 2 magazines 12V motor, B & H inverted viewfinder B & H geared tripod quartz slit recording glow-lamp & cases, all rebuilt... **$2,990**

EVERYTHING FOR STUDIO, LABORATORY

Lights, Mikes, Booms, Dollies, Lenses, Background Process, Moviolas, etc *Send for Bulletin Sturelab showing thousands of good buys.*

S.O.S. Cinema Supply Corp.

Dept AC, **449 West 42nd St., New York 18**

16mm
Color—Black and White
ACME FILM LABORATORIES
1161 N. Highland Avenue
Hollywood 38, Calif.
Phone HIllside 7471
GUS BARTH WILSON LEAHY

Record Kodak Wage Dividend

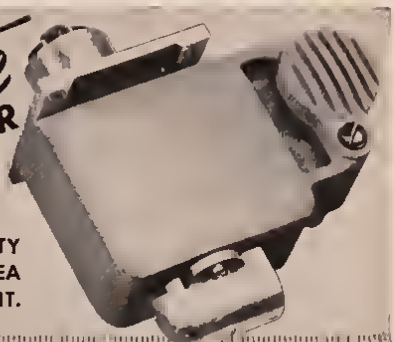
An estimated $11 650,000 wage divi dend will be distributed by Eastman Ko dak to 50,000 employees in the western hemisphere within the next few months, according to company announcement The wage dividend is the largest in the 36 year history of the plan at Kodak, and employees with five or more years serv ice will receive approximately six times their weekly salary as bonus

RENTALS
SALES
SERVICE

Mitchell—Bell & Howell
(USED) (USED)
Standard, Silenced, N.C., Hi-Speed, Process, and Eyemo Cameras.
Fearless Blimps and Panoram Dollys—
Synchronizers—Moviolas
35mm Double System Recording Equipment—
Cutting Room Equipment
WE SPECIALIZE in REPAIR WORK on MITCHELL and BELL & HOWELL CAMERAS

Cable CINEQUIP
Circle 6-5080
CAMERA EQUIPMENT CO.
FRANK G. SUCHER
1600 BROADWAY NEW YORK CITY

Modulite
GALVANOMETER



VARIABLE DENSITY
OR VARIABLE AREA
RECORDING UNIT.

- ✓ Linear response makes processing easier especially on density recordings
- ✓ Flat frequency response
- ✓ Requires only 300 milliwatts for full modu lation
- ✓ Can be biased for noise reduction
- ✓ Compact and light weight
- ✓ Mounts in any position V bed and locking gib permit track position adjustment
- ✓ True square edge of Mounting Plate to check azimuth
- ✓ Prefocused exciter lamps Can be changed in a few seconds No adjustments required
- ✓ Fine focus adjustment with one sixteenth inch range is built in
- ✓ Rugged vibrator unit Will withstand over-loads without harm No strings to break
- ✓ May be used for 16 m/m or 35 m/m tracks Image .070 wide x .0003 thick
- ✓ Proven performance

Price $450.00 F. O. B. Los Angeles

We also make 16mm Sound Cameras and Recorders Blimps and Synchronous Motor drives for the Cine-Kodak Special, and the Automatic Parallax View range finder

BERNDT-BACH, INC.
MANUFACTURERS OF SOUND-ON-FILM RECORDING EQUIPMENT SINCE 1931
7377-G BEVERLY BLVD. LOS ANGELES 36, CALIFORNIA

STATEMENT OF THE OWNERSHIP, MANAGE-MENT, CIRCULATION ETC., REQUIRED BY THE ACTS OF CONGRESS OF AUGUST 24, 1912 AND MARCH 3, 1933

Of THE AMERICAN CINEMATOGRAPHER pub lished Monthly at Los Angeles California for October 1 1947

State of California, } ss
County of Los Angeles }

Before me a Notary Public in and for the State and county aforesaid personally appeared Walter R Greene who having been duly sworn according to law deposes and says that he is the Editor of the AMERICAN CINEMATOGRAPHER and that the following is to the best of his knowledge and belief a true statement of the ownership man-agement (and if a daily paper the circulation), etc of the aforesaid publication for the date shown in the above caption, required by the Act of August 24 1912, as amended by the Act of March 3 1933 embodied in section 537 Postal Laws and Regulations printed on the reverse of this form to wit

1 That the names and address of the publisher editor managing editor and business managers are Publisher A S C Agency Inc 1782 N Orange Dr Hollywood 28 Calif Editor Walter R Greene 1782 N Orange Dr Hollywood 28 Calif Man aging Editor Walter R Greene 1782 N Orange Dr Hollywood 28 Calif Business Managers Marguerite R Duerr 1782 N Orange Dr Holly wood 28 Calif

2 That the owner is (If owned by a corpora tion its name and address must be stated and also Immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock If not owned by a corporation the names and addresses of the individual owners must be given If owned by a firm company or other unincorporated concern its name and address as well as those of each in dividual member must be given) A S C Agency Inc 1782 N Orange Dr Hollywood 28 Calif wholly owned by the American Soc ety of Cinema-tographers Inc a non profit corporation whose address is 1782 N Orange Dr Hollywood 28 Calif Officers of the American Society of Cine-matographers Inc are Presidenl Leon Shamroy, 1782 N Orange Dr Hollywood Calif 1st Vice Presidenl Charles G Clarke 1782 N Orange Dr Hollywood Calif 2nd Vice President Wm V Skall 1782 N Orange Dr Hollywood Calif 3rd Vice Presidenl Lee Garmes 1782 N Orange Dr Hollywood Calif Executive Vice President and Treasurer Fred W Jackman 1782 N Orange Dr Hollywood Calif Secretary Ray Rennahan 1782 N Orange Dr Hollywood Calif Sargeant at Arms John W Boyle 1782 N Orange Dr Holly wood Calif

3 That the known bondholders mortgagees and other security holders owning or holding 1 per cent or more of total amount of bonds mort gages or other securities are (If there are none so state) None

4 That the two paragraphs next above giving the names of the owners stockholders and secur-ity holders if any contain not only the list of stockholders and security holders as they appear upon the books of the company but also in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation the name of the per son or corporation for whom such trustee is act ing is given also that the said two paragraphs contain statements embracing affiant's full knowl edge and belief as to the circumstances and condi tions under which stockholders and security hold-ers who do not appear upon the books of the company as trustees hold stock and securities in a capacity other than that of a bona fide owner and this affiant has no reason to believe that any other person association or corporation has any interest direct or indirect in the said stock bonds or other securities than as so stated by him

5 That the average number of copies of each issue of this publication sold or distributed through the mails or otherwise to paid subscribers during the twelve months preceding the date shown above is—(This information is required from publishers of daily weekly semi-weekly and triweekly publications only)

WALTER R GREENE
Editor

Sworn to and subscribed before me this 1st day of October 1947
(Seal)
Franklin H Mills
Notary Public
(My commission expires July 3, 1949)

New Estimate of Colors Visible to Naked Eye Made by Kodak Scientist

How many separate colors can you distinguish with your own eyes in daylight?

Dr David L MacAdam, specializing in research on color vision at Kodak Research Laboratories, has obtained a new estimate which puts the figure in excess of 17,000

He bases his estimate on the 17,000 distinct colors of equal brightness which are detectable when observations are made with a precise optical instrument To this figure he adds the fact that, when large pieces of colored paper are observed with the naked eye, roughly 50 percent more colors can be distinguished than by the finest optical means

Under similar favorable conditions only about 500 distinct shades of gray—ranging from black to white—can be detected.

Dr MacAdam said that when color is introduced each shade of gray in the middle range of the scale of about 500 shades between black and white is expanded up to 17,000 times

For Kodak researchers working for superior reproduction of color in pictures, this means that in the change-over from black-and white to color photography, they must contend with an increase from 500 to several million distinguishable differences

The ultra-fine differences in color studied in the laboratory are known to scientists as distinct chromaticities — which are the distinguishable features of color when brightness is disregarded

In arriving at his new figure Dr MacAdam estimates that there are about 250 distinguishable colors in the spectrum, plus 10,000 distinguishable tints of spectral colors and 7,000 additional colors, like purple which do not resemble any spectral colors

---

New B&H District Managers

Perry M Thomas has been appointed mid-western district manager for Bell & Howell Company, while Richard H Pratt, Jr will represent the company in similar capacity in the southern states

DIRECT 16MM SOUND
with MAURER RECORDING SYSTEM

For the Producer of 16mm Business, Educational and Religious Films

- Edge Numbered Work Prints
- Sound Recording
- Duplicate Negatives
- Synchronized Studio Photography
- Release Prints—Color and B&W

GEO. W. COLBURN LABORATORY, Inc.
164 N. Wacker Dr., Dept. A . Chicago 6, Ill.

FOR LIGHT ON EASTERN PRODUCTION--

C. ROSS

For Lighting Equipment

As sole distributors East of the Mississippi we carry the full and complete line of latest-type Inkie and H I-Arc equipment manufactured by

MOLE-RICHARDSON, Inc

Hollywood - California

Your requirements for interior or exterior locations taken care of to the last minute detail anywhere

MOTOR GENERATOR TRUCKS

RENTALS SALES SERVICE

CHARLES ROSS, Inc.

333 West 52nd St, New York, N. Y. Phones: Circle 6-5470-1

See Houston First

FOR SPECIAL FILM PROCESSING EQUIPMENT

The Industry's chief source of engineering "know-how" in the solving of film processing problems should be your first contact. See Houston First.

Your problem may require built-to-order machines Adaptation of standard features in the Model 10 for 35 mm or 16 mm, and the Model 11 for 16 mm processing combined with specially built equipment will meet any need.

Houston, the largest producer of standard equipment ... designs and manufactures custom built 35 mm or 16 mm processing equipment.

Write for Descriptive Folder

Houston
LARGEST PRODUCERS OF FILM PROCESSING EQUIPMENT

PRINTERS CRANES
LABORATORY EQUIPMENT

THE HOUSTON CORPORATION
11801 West Olympic Blvd.
Los Angeles 25
California

EASTERN OFFICE
George Lauler
1650 Broadway, New York City
Circle 7-8177

Religious Film Division Of United World

United World Films has established a special religious films division, which will be under general direction of vice president Edward T Dickinson, Jr William Sherman Greene, Jr has been named manager of the division and will supervise distribution to Protestant church groups, while Leo B Guelpa, Jr contacts the Catholic groups

BLACK AND WHITE ⇄ KODACHROME

ENLARGED 8 to 16 REDUCED 16 to 8

DUPLICATES

GEO. W. COLBURN LABORATORY, Inc.

164 N. Wacker Dr., Dept. A, Chicago 6, Ill.

"Goerz American"

PRECISION PHOTO-LENSES

An American Product Since 1899

will give you a lifetime of profitable satisfaction

GOERZ OAGOR F6.8
The favorite universal all-purpose lens color-corrected wide-angle, convertible—for interiors exteriors commercial and amateur work scenic views groups, banquets color film copying enlarging

GOERZ SUFER OAGOR F8
The wide angle lens greatly extended coverage, convertible

GOERZ OOGMAR F4.5
The perfect speed lens color-corrected convertible For news, sports portraits general work color film

GOERZ ARTAR F9 TO F16
The apochromatic process lens for color separation with perfect register in the finest process also for black and white commercial work

GOERZ GOTAR F6.8, F8, F10
The lens for black and white process and commercial work copying and enlarging

GOERZ HYPAR F2.7, F3

GOERZ AFOGOR F2.3
The movie lenses with microscopic definition

GOERZ MOVIE CAMERA ACCESSORIES

Order thru your dealer now for delivery as soon as possible

The C. P. GOERZ AMERICAN OPTICAL COMPANY

Office and Factory

317 EAST 34 ST., NEW YORK 16, N. Y.

AC-1

NEW SEMI-PRO 16MM. CAMERA BY BELL & HOWELL

FROM Bell & Howell's Lincolnwood Laboratories comes the announcement of the Filmo Specialist, new 16 mm B&H semi professional camera designed for the advanced worker in 16 mm film

The Specialist, says B&H, embodies a host of cinematic features that will be of great interest to all 16 mm photographers who are operating either professionally or at a technical level in advance of the average home movie maker

Features of the new camera are

Professional shift-over focusing, whereby a brilliant, full-frame image on ground glass permits rapid and accurate focus through the lens while in is in photographing position

Four-lens turret, on which lenses are widely spaced to eliminate optical interference even with longer lenses Lens equipment includes 1-inch f 1.9 Lumax, 17 mm. f 2.7 Ansix, 2-inch f 3.5 Telare, and 3-inch f 4 Telate, all Filmcoted lenses

Viewfindet parallax adjustment, said to permit easy and rapid elimination of parallax error Once the findet is adjusted, any action can be accurately followed through the viewfinder.

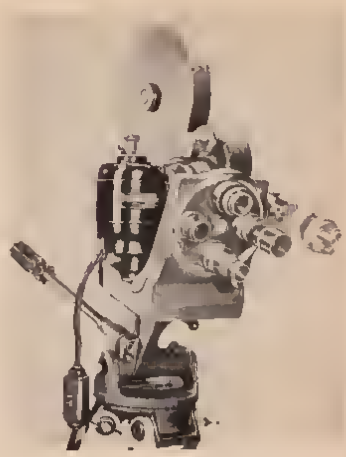
Positive viewfinders, mounted on a rotating turret, providing brilliant upright images

Light-baffled shutter prevents light-leak, keeps first frame from fogging

Selective, 3-way power Filmo Specialist is driven electrically, by spring motor, or by hand-crank, as the operator chooses Also, the purchaser has a choice of four electric motors, including a synchronous, sound-speed, electric drive

400-feet film capacity The two 400-feet external film magazines accompanying each camera give the Specialist an exceptionally wide film capacity range

Bell & Howell states further that the new camera will include seven operating speeds, ranging from 8 to 64 frames per second, each governor controlled and accurate to within 2%, a Veeder footage counter reading up to 999 feet, complete film protection through special B&H design of registration mechanism, shuttle-tooth movement, and shock-absorbing sprockets, rewind knob for backwinding the film within the camera, automatic relative exposure indicator for determining lens apertures at other than normal camera speed, and continuous operation lock.



Available for the Specialist is a B&H semi-professional tripod with case, and a carrying case for the camera and its accessories

Ampro Adds Plant

To accommodate the expansion program of Ampro Corporation, company has acquired a five story building in Chicago to provide 100,000 square feet of additional plant space for the manufacture of Ampro's products, including 8 and 16 mm silent and sound projectors, and slide and strip-film models.

AVAILABLE — IMMEDIATE DELIVERY!

PANORAM DOLLYS

BLIMP GEARED HEADS

BLIMPS for MITCHELL CAMERAS

FRANK C. ZUCKER

CAMERA EQUIPMENT CO.

1600 BROADWAY NEW YORK CITY

Theatre Television

(Continued from Page 14)

tive Paramount has been active for some time

Here in Hollywood when theatre television is mentioned, most people immediately think of the producing companies It is my guess that the producing companies and their distributors will be the last to be affected The revenues available from the production and distribution of television films is not comparable with the return from the theatre Further, economically there seems to be little likelihood that television distribution of the present product can replace film, at least for a long time

It is interesting to note that the above named companies have theatre circuits and that most of the interest has developed in New York It is unfortunate that the theatres of the country are not as well organized and coordinated technically as the producers It was in recognition of this weakness that the Society held a Theatre Engineering Conference in conjunction with our last convention

We have discussed many phases of both television broadcasting and theatre television In the field of television broadcasting it is quite apparent that sports are most popular, followed by news, shorts and drama Commercials are acceptable. These programs are being presented instantaneously, from pre-prepared films and transcriptions and are well on their way

In the theatre we have no television experience but we have a very good barometer—the box office During the playing time of the recent World Series Baseball Games the box office was reported to be "off" from 40 to 50% in the New York, Boston, Philadelphia and Washington areas It is also estimated that one-half a million people saw these games over television Most of these people saw these games in bars or other public places I don't know whether the motion picture theatres are going to offer these events to the public or not There is one thing that I would be quite sure of and that is if the theatres don't, some progressive managers of fight arenas and other auditoriums will.

Some of the statements which I have made would make it seem as though television broadcasting and theatre television were highly competitive It is my feeling that these two arts should develop side by side in collaboration and that the work of each should contribute to the betterment of the other It will be a long time before the public can be supplied with or can afford to buy television receiving sets in numbers compared to radio During the interim the theatres should determine the extent and manner of their participation The motion picture industry has been aided by radio which has helped to build stars, personalities and interest. The same thing should hold true in regard to television Time and experience will tell how the best interest of the public can be served

If we as individuals are to be a part of future television activity, it is up to us to analyze the development and evolution of television on a broad basis and to see and accept the changes which are bound to take place as television takes its place as one of the great tools of entertainment presentation.

U. S. Camera Annual

The 1948 edition of U S Camera Annual will be available at photo supply dealers and stores within the next few weeks In two sections, first presents the outstanding news pictures of the year, while second portion is devoted to outstanding stills by expert professional and amateur photographers

FONDA BASIC MODELS

Speeds and developer times given are normal standards Variations may be obtained by adjusting variable speed drive or altering developer loop lengths by the Fonda built in adjustment mechanism

FILM TYPE	FILM SIZE	MODEL NO	APPROXIMATE OPERATING SPEEDS			APPROXIMATE MACHINE SIZES Includes Feed Elev & Work Tables Both Ends					
						WET END			DRY END		
			Positive 6 Min Dev	Negative 9 Min Dev	Reversal 6 Min 1st Dev 6 Min 2nd Dev	Length	Width	Bevel Ceiling	Length	Width	Height
Negative	16 mm	1 1813 1 1671		29 fpm 39		6½ ft 9	3 ft 3	12 in 13	5 ft 3	3 ft 3	3 ft 3
	16 35 mm	1 3068 1 3013		17 24		6½ 9	3 3	13 13	5 3	3 3	3 3
Positive and Negative	16 mm	1 3013 1 1814	63 fpm 121	29 38		9 13	3 3	13 13	3 9	3 3	3 3
	16 35 mm	1 3017 1 3062	29 38	13 24		9 13	3 3	13 13	3 9	3 3	7 3
Reversal	16 mm	1 1008	44	29	44 fpm	13	3	13	3	3	3
	16/35 mm	1 3018	26	17	26	13	3	13	3	3	3
			Microfilm 3½ Min Dev		Ansco Color 17 Min 1st Dev 15 Min. Color Dev						
Microfilm	16 mm	1 1829	73 fpm			9½	3	13	3	3	3
	16/35 mm	1 3013	44			8½	3	13	3	3	7
Ansco Color	16 mm	1 1006 1 1062			43 fpm 83	16 26	3 3	13 13	3 7	3 3	7 3
	16 35 mm	1 3011 1 3004			26 52	16 26	3 1	13 7	5 7	3 1	3 3

Choose your own speed . . .

With the FONDA FILM DEVELOPER

YES, with a Fonda you can choose your own speed range (see chart). But more important, regardless of speed, you need never worry about film slack. The patented Fonda top-friction drive *eliminates* film slack . . . eliminating your biggest operating hazard

Note too that the Fonda will process any type of 35mm or 16mm film. Learn full details by sending for your complimentary copy of "The World Develops with Fonda." Address Fonda Division, Solar Aircraft Co., 2240 Pacific Highway, San Diego 12, Calif.

FONDA FILM PROCESSING EQUIPMENT DIVISION

SOLAR STAINLESS PRODUCTS

San Diego 12, California • 60 East 42nd St., New York 17, N. Y.

"Forever Amber"

(Continued from Page 9)

tings are very aptly characterized by selective lighting that maintains a generally somber key, but points up significant details harshly In the later episodes, when Amber has become a full-fledged courtesan luxuriating in the midst of her ill-gotten gains, the style of photography takes on a smooth, glossy quality that is definitely in key with her exalted status

Some of the most effective photography in the entire film is devoted to the plague sequences in which the horror and desolation of the situation is forcefully suggested through the use of heavy shadows, low-key lighting, and grey daylight exteriors Here again bright color was held to a very minimum, with the general monotone effect disturbed only by the startling red crosses appearing on the doors of stricken houses

Perhaps the most spectacular sequence is that portraying the London fire Shamroy uses flames as a fiery frame for his compositions, and the resultant effect is frighteningly subjective in that the audience is made to feel that it is actually in the midst of the holocaust An overall red glow, low camera angles, and the skillful use of the wide-angle lens does much to point up this effect and add to the drama of the situation

The duel sequence, with its static grey fog and muted color, is a fine example of photographic understatement, while yet establishing an atmosphere of impending doom that is exactly in key with the emotional pattern of the action Considered the most difficult bit of shooting in the picture, this sequence required an entire sound stage and the application of several original filming devices

We all know that there is a minimum of color existing in a foggy morning before sunrise, Shamroy observes, 'but in order to film such an effect on a sound stage in Technicolor, light was needed, and it had to be sufficiently actinic to register on the film The aim was to create a monotone effect through the absence of all color from the scenes"

No stage on the lot was large enough to create anything approximating an actual overcast sky, so the top of the stage above the set was faced with a grey backing against which was blown a chemical fog created by releasing two acids through jets under air pressure In order to keep these vapors from settling to the floor of the stage, the temperature had to be maintained near the freezing point during actual shooting In order to further accentuate the impression of dank coldness, the set was lit exclusively with raw arc light, and a fog filter was used over the camera lens

In sharp contrast to the studied drabness of the duel sequence is the colorful elegance of the scenes showing the court of Charles II Stately Whitehall Palace, with its richly carved wooden interiors, makes an elegant frame for the brilliant costumes of the courtiers, and the sparkling high-key lighting does much to convey the glamorous atmosphere of the decadent court

Shamroy the Man

Leon Shamroy, A.S.C., the power-behind-the-lens on "Forever Amber," is something of a personal paradox A genial extrovert with the uninhibited vocabulary of a Brooklyn truck driver, he is, at the same time, one of Hollywood's most accomplished and most sensitive camera artists—a past master at the craft of blending color with celluloid

His most striking quality, aside from his acknowledged mastery of the lens, is his sincere devotion to the cinematic medium as an *art form* His entire background and approach to cinematography is based on a careful study of the painting techniques of the Old and Modern Masters, and his skill as a *raconteur* of ribald stories is excelled only by his ability to discuss the more subtle principles of classic art applied to the motion picture

"Whether you're using an 8 mm home-movie camera or a Technicolor cameta on a sound stage," he points out, "you can learn a lot by studying the great painters Like the artists, you can approach a picture in three ways *Breughel*, for instance, painted life as he saw it *Goya* added emotion *Picasso* put down on canvas what was in his mind In shooting movies today we use either one or all three of these approaches"

He goes on to say that the essence of good technique, both in painting and in photography, is *simplicity*—a quality that often becomes obscured by the wealth of complicated techniques and gadgets available to the modern cinematographer "The Old Masters knew all there is to know about lighting, perspective and color They were great in their simplicity Too many cinematographers today, professional as well as amateur, get too complicated They become too involved in backlighting, high-lighting and other techniques that camera people revel in"

Shamroy practices what he preaches His library is stacked with prints of masterpieces of the world's greatest painters from the Grecians on down to the most modern surrealists He visits every art show within a thousand miles of Hollywood, and goes about lighting a scene with the same thought and care Rembrandt or El Greco must have used in approaching a canvas

His subtlety in using warm and cold tones of light to enhance the effect of Technicolor compositions has led to the development of a style known as painting with light ' He employs his lighting values exactly as a painter might use subtle tones of pigment to suffuse selected areas of a canvas with warmth or coolness This style is a complete departure from the earlier concept of Technicolor photography in which great amounts of *white* light were used to flood the set—color contrast within the scene resulting solely from the design of sets and costumes

Unlike some cinematographers who try to cram as much color into the frame as possible, Shamroy is a firm believer in the restrained use of the more brilliant hues The Masters, you'll notice, really knew how to use color, he says Hollywood only now is catching up with them The movies have been blamed time and time again (and rightfully so) for using hard and cold colors that make the scenes look like postcards The Old Masters never did that Their colors were muted but they added greatly to the dramatic and emotional effect of the painting

His approach to color lighting is not merely the mechanical approach of the technician, but the *emotional* approach of the artist He feels that each sequence has its own emotional atmosphere and that it is the task of the cinematographer to match his lighting to that emotion Thus it is that the photography in Forever Amber varies from somber low key to vivacious brilliance according to the constantly changing emotional character of the action

Shamroy, a pioneer in the field of color cinematography, has thrice won Academy awards for his Technicolor photography of 'The Black Swan (1942), Wilson (1944), and Leave Her to Heaven (1945) For him to win another award this year for his lensing of Amber' could hardly be more than an anti-climax after that brilliant record—but it is a certainty that his name will stand high up on the list of nominees when final judging for the awards rolls around

SPECIAL ITEMS • REDUCED PRICES

1 **EYEMOS**—Models A, K, Q Spider Turret Complete Outfits—Used
2 **ARRIFLEX** Outfits With Primoplan, Astro or Sonnar Lenses
Arriflex H-Hat & Tripod Adapter $35.00
12 v Plastic Lite Weight Batteries $35.00 $45.00
Arriflex Tripod Like New $250.00
3 **MOVIOLA**, Model D 35 mm Silent—Used With Extension Arms and Fool Switch $175.00
4 **MITCHELL** Freehead Tripod Like New $450.00
5 **ZOOMAR** Model A 16 mm Var-Focal Lens Used
WRITE FOR CATALOG P4

CAMERA • MART
70 West 45th St. New York 19, N. Y.
CABLE ADDRESS CAMERAMART

MOVIOLA
FILM EDITING EQUIPMENT
Used In Every Major Studio
Illustrated Literature on Request
Manufactured by
MOVIOLA MANUFACTURING CO
1451 Gordon Street Hollywood 28, Calif

Color Is Different

(Continued from Page 11)

bluish effect one can readily get and just as readily detest

When using kick lights, such as Sentors—an incandescent light source with the blue lens element adapted for color—I always add a Y-1 filter whenever the lamp is more than a 45 degree angle from the object photographed The light has a tendency to look blue and Technicolor will certainly photograph a blue, so believe me when I say, remember the good old Y-1's

Whenever doing light effects, such as an actor walking through a shadow, make it a real good black shadow or again he's going to look like 'The Last of the Mohicans,' red face and all Also one had better have something lighted normal behind him, the wall or a low break, as somewhere in the shot you must have something normal to print, too

Black really goes black in color All the arc light in the world won't make it become any lighter, but next time try putting an amber 56 filter on the arc that is lighting this dark object Or again and better yet, use a raw unfiltered incandescent lamp on it This is especially good on dark furniture—or tree trunks, etc

On a Technicolor picture one has a tendency to be very close to his light meter—this is proper but still don't become too attached to what it tells you If after measuring a key light to the proper amount of light, the person's face looks hot, why flood the light out until it looks better The same holds if it looks too low in key, bring it up to where it looks right to your eye You are still photographing what you see and you must use the meter as a tool and not as an automatic lighting method

Split focus shots constitute a problem more difficult than in black and white In the first place, all color systems lack definition no matter what their sponsors claim to the contrary I found that the best way to eliminate the trouble is to eliminate this type of shot Naturally directors become very obnoxious after talking them out of shots all day, especially if they've never made a color picture before If this is true, wait until you hear them moan about the photography when they happen to view rushes printed on the red, green, or blue side some night They still believe that the cameraman slipped up somewhere down the line

Whenever possible it is a good idea to try to suggest the elimination of "dupes" After a dissolve the 'dupe' in Technicolor is held for the entire shot, not just for the length of the dissolve as in black and white If your director can arrange to cut to another angle as soon as possible after the dissolve you will have a much better looking photographic job

The greater field offered by color photography for the cameraman to express his imagination makes it much better for him to work with There is an unending field of new effects that are not possible in black-and-white The pleasure of looking at a good day's rushes is something more satisfactory than any black and white The work done by the Directors of Photography as pioneers in Technicolor is an invaluable help for all of us just venturing into color Much can be learned by careful study of work done by our A S C. members who have blazed a trail of achievement and shown the way for other men in their practical and artistic approach to modern color photography

The cooperation required between the art director, costume designer and cameraman is more necessary than on any other type of production Naturally the Director of Photography should have the final say on all technical problems arising which affects the photography He is the one who presents the picture on the screen to the audience He is the one who is also responsible for the time consumed on production for technical reasons, and when the film is viewed in the studio projection room the entire production falls upon his shoulders The authority and decisions pertaining to anything in color must definitely be placed in his hands and he should be given a free hand to place the desired effect on the screen through his artistry and imagination

In color, we, as Directors of Photography, have a medium of expression that hasn't as yet been touched—we have much before us And again, Color is Different

FOR SALE

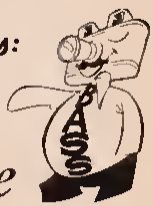
• Old established motion picture laboratory, including still and lantern slide departments, completely equipped Located in the heart of San Francisco film district

For details, write

C. R. SKINNER MFG. CO.

294 Turk Street, San Francisco, Calif.

Bass says:



I trade cameras and equipment

Come in or write me—tell me what you've got and what you want — we can get together.

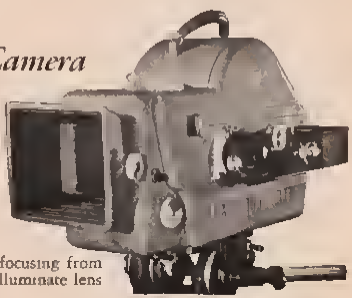
Bass Camera Co

179 W. MADISON ST., CHICAGO 2, ILL.

"PROFESSIONAL JUNIOR"

16mm BLIMP

for E-K Cine Special Camera



This Blimp, constructed of Dow Metal (magnesium) is thoroughly insulated for absolutely silent operation The Blimp has these exclusive features • follow focus attachment for changing lens calibrations while the camera is in operation • viewing magnifier mounted on top of blimp for focusing while camera is mounted in blimp • arrangement for opening camera viewing aperture trap for focusing from the outside of the blimp • pilot lights to illuminate lens calibrations and film footage indicator.

Blimp takes synchronous motor drive which couples to camera It has a leather carrying handle mounted at the top A dovetail bracket is provided to mount an erect image viewfinder for following action

Manufactured exclusively by the Makers of "Professional Junior" Tripods and Other Fine Camera Accessories.

FRANK G. ZUCKER

CAMERA-EQUIPMENT CO.

1600 BROADWAY NEW YORK CITY

Current Assignments of A.S.C. Members

MEMBERS of the American Society of Cinematographers were engaged as Directors of Photography in the Hollywood studios during December as follows

Allied Artists

• Karl Struss, The Tenderfoot, with Eddie Albert, Gale Storm, Barton MacLane, Binnie Barnes James Gleason

Columbia

• Ernest Laszlo, 'Lulu Belle (Benedict Bogeaus Prod) with Dorothy Lamour, George Montgomery, Glenda Farrell, Otto Kruger, Greg McClure

• William Snyder, The Loves of Carmen (Technicolor), with Rita Hayworth, Glenn Ford, Rod Randall, Victor Jory

• Phil Tannura, Trapped by Boston Blackie, with Chester Morris, Richard Lane Edward Norris, George E Stone, Frank Sully

• Allen Siegler, 'Port Said," with William Bishop, Gloria Henry

• Burnett Guffey, 'The Gallant Blade," with Larry Parks, Marguerite Chapman, Victor Jory, George Macready

• Vincent Fatrat "Best Man Wins," with Edgar Buchanan, Anna Lee

• Henry Freulich, Trail to Laredo," with Charles Starrett Smiley Burnette

Eagle-Lion

• John Boyle, Mickey (Cinecolor),

with Irene Hervey, Bill Goodwin, Lois Butler, Hatty McDaniel, Skip Homeier

• John Alton, Corkscrew Alley," with Dennis O'Keefe Claire Trevor, Marsha Hunt

Independent

• Benjamin Kline, "Arthur Takes Over' (Sol Wurtzel Prod), with Lois Collier, Jerome Cowan, Skip Homeier

• Walter Strenge, "The Unwritten Law" (Falcon Prods), with John Calvert, Rochelle Hudson, Lyle Talbot, Tom Kennedy, Roscoe Karns

• George Robinson, 13 Lead Soldiers" (Reliance Prod), with Tom Conway Helen Westcott Maria Palmer

Metro-Goldwyn-Mayer

• Charles Schoenbaum, "Master of Lassie (Technicolor), with Edmund Gwenn, Janet Leigh, Tom Drake Donald Crisp, Reginald Owen, Rhys Williams, Lassie

• George Folsey, State of the Union' (Liberty Films), with Spencer Tracy, Katharine Hepburn, Van Johnson, Angela Lansbury, Adolphe Menjou

• Robert Surtees, The Big City, with Margaret O'Brien, George Murphy, Robert Preston, Danny Thomas, Karin Booth, Betty Garrett, Lotte Lehman

• Harry Stradling, 'Easter Parade,' with Fred Astaire, Judy Garland, Peter Lawford, Ann Miller

Monogram

• Mack Stengler, Death on the Downbeat, with Freddie Stewart, June Preisser, Noel Neill Warren Mills

Paramount

• Leo Tover, "Sealed Verdict," with Ray Milland, Florence Marly, John Ridgely, Margaret Fields Broderick Crawford

• Lionel Lindon, Sainted Sisters,' with Veronica Lake, Joan Caulfield, Barry Fitzgerald, George Reeves, William Demarest, Beulah Bondi

• Ray Rennahan, "A Connecticut Yankee" (Technicolor), with Bing Crosby, Rhonda Fleming, Sir Cedric Hardwicke, Vurvyn Vye, Virginia Field, William Bendix, Joe Vitale, Henry Wilcoxon, Richard Webb

•Daniel Fapp, "Hazard," with Paulette Goddard, Macdonald Carey, Stanley Clements

• Charles Lang, Jr, Foreign Affair," with Jean Arthur, Marlene Dietrich, John Lund, Millard Mitchell

RKO

• Joe Valentine, "Joan (Sierra Pictures) (Technicolor), with Ingrid Bergman, Jose Ferrer, John Emery, George Coulouris, Richard Ney, Hurd Hatfield, Robert Barrat, Selena Royle, Gene Lockhart, Roman Bohnen, Ward Bond, Leif Erikson, Richard Derr

• Joe Walker, "The Velvet Touch" (Independent Artists), with Rosalind Russell, Leo Genn, Claire Trevor, Sydney Greenstreet, Leon Ames, Frank McHugh, Walter Kingsford, Dan Tobin, Esther Howard

Selznick

• James Wong Howe, Mr Blanding Builds His Dream House,' with Cary Grant, Myrna Loy, Melvyn Douglas, Dan Tobin, Louise Beavers Cliff Clark

Twentieth Century-Fox

• Joe La Shelle, Deep Water,' with Dana Andrews, Joan Peters, Cesar Romero, Anne Revere, Dean Stockwell Ed Begley, Mae Marsh

• Leon Shamroy 'This Is the Moment (Technicolor), with Betty Grable, Douglas Fairbanks Jr Cesar Romero Walter Abel, Reginald Gardiner, Harry Davenport, Virginia Campbell, Whit Bissell

• Norbert Brodine, Sitting Pretty' with Robert Young, Maureen O'Hara, Clifton Webb, Richard Haydn, Larry Olsen, Anthony Sydes

• Arthur Miller, Walls of Jericho, with Linda Darnell, Cornel Wilde, Anne Baxter, Kirk Douglas, Ann Dvorak, Marjorie Rambeau, Colleen Townsend, Griff Barnett, Barton MacLane, William Tracy

• Charles Clarke, The Iron Curtain with Dana Andrews, Gene Tierney, June Havoc, Lee J Cobb, Nicholas Joy, Frederic Tozere Dennis Hoey

Universal-International

• Russell Metty 'All My Sons, with Edward G Robinson, Burt Lancaster, Mady Christians Howard Duff Louisa Horton, Arlene Francis, Frank Conroy, Lloyd Gough Henry Morgan, Elizabeth Fraser

• Milton Krasner Up in Central Park,' with Deanna Durbin Dick Haymes, Vincent Price, Albert Sharpe, Thurston Hall, Tom Powers, Hobart Cavanaugh, Moroni Olsen, Nelle Fisher, Bunny Waters, Nina Lunn Patricia Alphin

• Irving Glassberg "Casbah" (Marston Prod), with Yvonne De Carlo, Tony Martin, Marta Toren, Peter Lorre, Thomas Gomez Hugo Haas Katherine Dunham

• Hal Mohr, 'Another Part of the Forest, with Fredric March, Ann Blyth, Dan Duryea, Edmund O'Brien, Florence Eldridge John Dall, Dona Drake, Betsy Blair, Fritz Leiber Wilton Graff

• Maury Gertsman, Are You With It?" with Donald O'Connor, Olga San Juan, Martha Stewart, Lew Parker, Pate Dane, George O'Hanlon Ransom Sherman, Eddie Parks Louis Da Pron

• William Mellor, "Man-Eater of Kumaon' (Monty Shaff Prod), with Sabu, Wendell Corey, Joanne Page

Warners

• Ernest Haller, Winter Meeting,' with Bette Davis, James Davis, Janis Paige, John Hoyt, Florence Bates, Walter Baldwin

• Woody Bredell, "Adventures of Don Juan" (Technicolor), with Errol Flynn, Viveca Lindfors, Robert Douglas Romney Brent, Alan Hale, Jerry Austin, Robert Warwick Joy Page, Helen Westcott

25 YEARS AGO

With A.S.C. and Members

• From London, Herford Tynes Cowling, A.S.C., described a cinematographic exhibition at South Kensington Museum which displayed Sir John Herschell's scientific toy, the Thaumatrope, invented in 1827, the original lantern slides of George IV's coronation procession, specimens of the wax figures used in the Chinese shadow shows centuries before the birth of Christ, a book published in Latin in Rome in 1646, wherein Anathasius Kircher describes the invention of the magic lantern in 1640, and Edison's original projector, which was first revealed to the public at the Chicago World's Fair in 1893. The exhibition was the property of Will Day, manufacturer of cinema appliances, and reportedly cost $50,000 to collect.

• John Seitz, A.S.C., was at Miami, Florida, filming "The Passion Vine" for Rex Ingram.

• Gilbert Warrenton, A.S.C., had started on his second Alice Brady starrer for Paramount in New York, "Anna Ascends."

• John Arnold, A.S.C., completed photography on total of 47 productions starring Viola Dana at Metro—every picture she appeared in for that company.

• Karl Brown, A.S.C., was photographing "The Covered Wagon," which James Cruze directed for Paramount.

• Roy Overbaugh, A.S.C., was in New York photographing the Richard Barthelmess starrer, "Fury."

• Off for Europe was Ira Morgan, A.S.C., to photograph Lionel Barrymore, Alma Rubens, William Collier, Jr., in Cosmopolitan's "The Enemies of Women."

• Irving Thalberg, then director general of Universal City, addressed an open meeting of the A.S.C. and emphasized the importance of superior photography on production.

• Sol Polito, A.S.C., launched filming of "Mighty Lak a Rose" in New York City.

• Experiences in filming a whale hunt on the Pacific for Irvin Willat's "All the Brothers Were Valiant," were described in an article by Robert Kurrle, A.S.C.

• John Dored, A.S.C., stationed at Riga, Latvia, reported on film conditions in Russia. A million Soviet rubles were required for a theatre admission, but in American money the amount represented about 10 cents. There were about 40 cinemas in Moscow, 30 in Petrograd, and not more than 200 in the provinces. Films shown were old and virtually worn out, with no new importations due to money inflation.

• Walter Griffin, A.S.C., was shooting a David Hartford feature in New Brunswick, Canada, and wrote that St. John was "the coldest city in the world."

• Warners feature, "Brass," was being photographed by George Benoit, A.S.C.

• The first publicized million dollar production, "Merry-Go-Round," was being photographed at Universal by Phil Whitman, A.S.C.

• George Barnes, A.S.C., was winding up photography on "Peg O' My Heart," Laurette Taylor starrer for Metro.

• Charles Rosher, A.S.C., was busy preparing for the start of Mary Pickford's starrer, "Dorothy Vernon of Haddon Hall."

• Jackson Rose, A.S.C., was shooting a comedy travelogue in Hawaii.

• Finishing "The Beautiful and Damned" for Warners, Ed Du Par, A.S.C., was assigned to handle photography for "The Little Church Around the Corner" at the same studio, with Homer Scott, A.S.C.

• Edward Blackburn, connected with the Rothacker office in New York, was to join the executive staff of Rothacker Aller laboratories in Hollywood.

• Ernest Palmer, A.S.C., returned from an extended trip to England, and rejoined the John Stahl organization as chief photographer.

• Reports from London detailed the construction of the newly-built Newman-Sinclair Number Three professional 35 mm. camera, with weight of camera and tripod of 30 pounds, and compact camera body of 14 x 6 x 8 inches.

Immediate Delivery

35 MM Eyemo Cameras

NEW AND RECONDITIONED
LIKE NEW
FULLY GUARANTEED
ALL TYPES ALL MODELS
REASONABLE PRICES

Camera Equipment Co.

1600 BROADWAY
NEW YORK, N.Y.
CABLE: CINEQUIP

RUBY CAMERA EXCHANGE

Rents . . Sells . . Exchanges

•

Everything You Need for the

PRODUCTION & PROJECTION

of Motion Pictures Provided by a Veteran Organization of Specialists

35 mm . . . . . 16 mm

IN BUSINESS SINCE 1910

729 Seventh Ave., New York City
Cable Address RUBYCAM

AVAILABLE NOW!

100 mm F2.5 Cooke Deep Field Ponchro Lens

- Highly corrected • Recent design
- Superb for color • Light in weight
- Exceptional depth of field
- Hard Filmocoted surfaces
- In stock now, unmounted
- Can be mounted for any 35mm camera

BELL & HOWELL COMPANY
Exclusive U. S. A. Distributors
7148 McCormick Road, Chicago 45
New York, Hollywood, Washington, D. C.

Only Art Reeves Can Sell The New Model

SENSITESTER

1944-1945-1946-1947 Models Will Handle Modern Fine Grain Film

WARNING . . .

Some dealers are offering war surplus machines as new models. These 1942 surplus machines will not handle modern film. They were not designed for that purpose.

ART REEVES MOTION PICTURE EQUIPMENT

1515 N. Cahuenga Blvd. Hollywood 28, Calif.

Classified Advertising

FOR SALE

BASS OFFERS BARGAINS Special Brand new Professional Jr friction head pan and tilt tripod complete with case Save $40 00 Regular $190 00 price including all taxas. Our price $150 00
35mm Eyemo, 3-speed Cooke F 2 5 lens case $235 00
Bell & Howell Eyemo Air Corps A-4-A Model 3-speed 1' wida angle F4 5 fixed focus, 2 Eymax F 2 8 focusing 6" Eymax F 4 5 focusing 10" F 4 5 Eymax focusing filters, variable optical view finder carrying case $595 00
New 16mm Auricon Single System Sound complete outfit including power pack battery, amplifier tripod etc $1125 00
400 ft inside magazine DeBrie with 2" Tessar F 3 5 lens, case and four magazines $165 00
CINE LENSES 1 Eymax F 4 5 wide angle 'C' mount, fixed focus $37 50
1' Pan Tachar F 2 in barrel $45 00
3" Pan Tachar F 2 3 in barrel $60 00
3' Apo Kino F 2 $75 00
3' Baltar F 2 3 in barrel $75 00
5" Pan Tachar F 2 3 in barrel $100 00
WRITE YOUR WANTS BASS MAY HAVE IT FOR LESS CINE HEADQUARTERS FOR 37 YEARS BUY SELL AND TRADE
BASS CAMERA CO 179 W MADISON ST CHICAGO 2 ILL

EASTMAN New Sound Kodascope Projector $350 00 2" F 1 6 Chrome Lens New $95 00 Eastman Sports Finder for Cine Special Synchronous Motor for Cine Special 200-ft Chamber for Cine Special 100-ft Chamber for Cine Special Auricon Blimp, Professional Jr Tripod New Wide Angle Lens for Eastman Special or Bolex Camera Have adapters for both C Mount F 2 7, New Chrome 2 3 4 6' Lens East man New Lens in Stock 16MM and 8MM Lens 16MM Films Sound Silent Catalog Free Sam's Electric Shop Passaic N J

BARGAINS IN PROFESSIONAL CINE LENSES AND CAMERAS Samples of our extensive stock 400 foot Eyemo magazine $54 50 Special Model K Eyemo Complete with 2 inch F 3 5 Ektar Lenses $375 00 1" F 2 3 Kinar Wide Angle in focusing mount for Eyemo "C Camera $99 50 2 F 3 5 Kodak Ektar in focusing mount for Eyemo 'C $55 00 3 F 1 8 Astro Pan Tacher in focusing mount for Eyemo C $279 50 3 F 2 Taylor Hobson Cooke in focusing mount for Mitchell $189 50 Hundreds of other lenses of all types speeds, makes and focal lengths Sold on 15 day trial basis—complete satisfaction assured Write our lens expert B Smith We will buy your surplus lenses for cash Burke & James Inc Photo Supplies Since 1897 321 So Wabash Ave Chicago 4 Illinois

ASKANIA 35mm Studio Camera synchronous motor 3 Astro f2 3 lenses 4 400 magazines blimp etc $975 00 Bolex 16mm 3 lenses complete $375 00 Process Background Screens $2 40 sq ft Underwater Blimp, $395 00 35mm Soundfilm Recorder with new Galvanometer $1995 00 Optical Reduction Printer 35/16 $3395 00 Three Way Sound Moviola reconditioned $795 00 New Moviola D, $279 50 Eastman Densitometer $152 50 5000W Studio Spots $89 50 Send for latest stocklist S D S Cinema Supply Corporation 449 W 42nd Street New York 18

ATTENTION ARRIFLEX OWNERS Simplify the operation of your camera with a magazine footage scale calibrated from 0 to 200 feet Price $1 00 each CAMERA MART, INC, 1614 No Cahuenga Hollywood 28 HE-7373

WE BUY, SELL AND RENT PROFESSIONAL AND 16mm EQUIPMENT NEW AND USED WE ARE DISTRIBUTORS FOR ALL LEADING MANUFACTURERS RUBY CAMERA EXCHANGE 729 Seventh Ave New York City Established since 1910

WE Buy Sell Trade Cameras Projectors Laboratory and Cutting Room Equipment 8 16 35 mm We pay highest prices Carry one of the most diversified stocks in America Mogull's Camera & Film Exchange 68 West 48th Street New York 19 N Y

BELL & HOWELL Professional Camera Rack-over Model with Unit Eye Shuttle 170 degrees complete or haad only RUBY COMPANY INC 729 Seventh Ave New York 19 N Y

FOR SALE

35mm SPECIALS

35MM INTERMITTENTS—precision machining excellent design Perfect for Printers Animation Cameras Slida Film Cameras and for silencing and modernizing motion picture cameras Double pull-down claws and double registration pins at aparture Entire unit in light-tight metal case to accommodate 200-foot roll complete with take-up Light trap at aparture These units are NEW Will sell for $150 00 each Write for quotations on quantity purchase

35MM FILM SCANNERS—Acme 'Ace" with footage and frame counters Like new VALUE $152 50 Will sell for $100 00 each Threa without counters value $122 50 Will sell for $80 00 aach

AFP
1803 EMPIRE STATE BUILDING
NEW YORK 1 N Y

MORGAN CAMERA SHOP
The Complete Camera Store
We buy, sell, trade, rent.
Free copy of MORGAN CAMERA NEWS sent on request
6262 Sunset Boulevard • • Hollywood 28, Calif.

BERNDT MAURER MODEL D bi-lateral track recorder complete with noise reduction amplifiar amplifier cables microphone Two 400-ft magazines 110-v A C single phase synchronous motor Also B-M 16mm Model 506A camera with 3 lenses two 400 ft magazines, 12 v and 110 v motors and tripod In like new condition Burton H Zucker, 1600 Broadway New York 19 N Y

MOVIE FILM PROCESSING—Finest Automatic Machine Processing 8mm 16mm 48 hour service Also duplicating editing titling other lab services Send for list of prices Fotoshop Inc Room 106 18 E 42nd St New Work C ty

EYEMO Cameras single and turret models Camera Mart Inc 1614 Cahuenga Hollywood 28 HEmpstead 7373

WANTED

WANTED TO BUY FOR CASH

CAMERAS AND ACCESSORIES

MITCHELL, B & H, EYEMO DEBRIE, AKELEY

ALSO LABORATORY AND CUTTING ROOM

EQUIPMENT

CAMERA EQUIPMENT COMPANY

1600 BROADWAY NEW YORK CITY 19

CABLE CINEQUIP

WE PAY CASH FOR EVERYTHING PHOTOGRAPHIC Write us today Hollywood Camera Exchange 1600 Cahuenga Blvd, Hollywood

HIGHEST Dollar—Laboratory, Studio or Recording Equipment S O S Cinema Supply Corporation 449 W 42nd Street New York 18

CAMERA & SOUND MEN

AVAILABLE for 16mm and 35mm assignments JOHN L HERMANN ASC-FRPS 1712 Napoleon Avenue Phone Jackson 8605, New Orleans 15 Louisiana Member International Photographers Local 666

CAMERAMAN desires position with company producing industrial film still or movie Ten years experience as cameraman cuttar writar director American Cinematographer Box 1046

CAMERA & SOUND MEN

SERVICE TO PRODUCERS

Camera and sound men artistically and scientifically skilled well equipped **MODERN 1200 Square Feet SOUND STUDIO**, high-fidelity play-back Stage set construction

BOLAB
Sandy Hook Connecticut
90 minutes from New York City
Telephone Newtown 581

Want To Buy?
Want To Sell?

★

New and Used

CAMERAS
PROJECTORS
LENSES
ACCESSORIES

★

Your classified ad on this page reaches more buying prospects for motion picture photographic equipment and supplies than any other medium.

CLASSIFIED RATES
10 cents a word
Minimum of 10 words

Mail Remittance and Copy to
CLASSIFIED DEPARTMENT
AMERICAN CINEMATOGRAPHER
1782 N. Orange Drive
Hollywood 28, Calif.

Through him . . . West meets East

ACROSS his "front page" the world parades . . . before the eyes of moviegoers on Main Street. There, West and East *do* meet—through the highly specialized efforts of the newsreel editor.

He sifts the facts and foibles of the world . . . and presents in one short reel the significant, the human, and the odd—the news that helps the world to know itself.

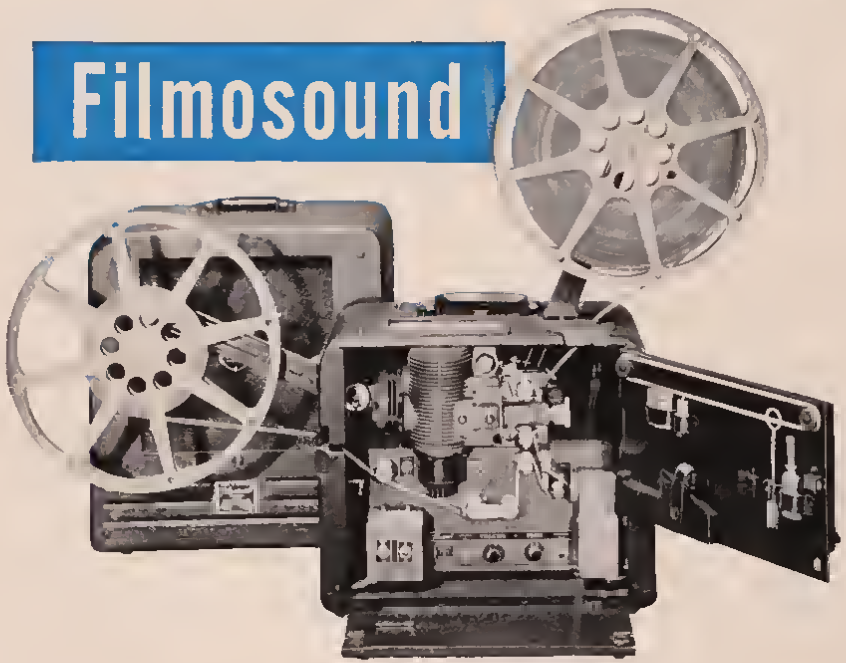
To his objectivity . . . his sense of the newsworthy . . . his feeling for concise and graphic storytelling . . . the newsreel owes its unique place in American journalism.

Yet the newsreel editor would be the first to give due credit to his staff of cameramen . . . and to the Eastman motion picture films which help them cover the news—and help him present it so effectively.

EASTMAN KODAK COMPANY
ROCHESTER 4, N. Y.

J. E. BRULATOUR, INC., DISTRIBUTORS
FORT LEE • CHICAGO • HOLLYWOOD

Invite the world's greatest screen stars into your own living room with Filmosound



The world's greatest actors and musicians—see them and *hear* them in your own living room at your pleasure! Have them entertain your family and friends whenever you wish!

Filmosound, the 16mm Bell & Howell projector, brings them to you with *sound-on-film* realism never before achieved. Brilliant 1000-watt illumination, plus new Filmocoted lens, produces clear, true screen images. At all volume levels, sound is natural and undistorted.

Choose your "home theater" programs from the thousands of fine films which are available at moderate rental rates. Filmosound will show your own personal 16mm silent films, too. Thus this one projector will meet all your 16mm projection needs, sound and silent.

Filmosound's exclusive engineering features banish the dangers of film damage. Operation is cooler, quieter, and more dependable than ever before. And Filmosound is *easy* to use . . . children operate it successfully in schools everywhere.

Your B&H dealer will gladly demonstrate the complete Filmo line of 8mm and 16mm cameras and projectors. Or write for illustrated booklet to Bell & Howell Company, 7148 McCormick Road, Chicago 45. Branches in New York, Hollywood, Washington, D.C., and London.

Precision-Made by

Bell & Howell

Since 1907 the Largest Manufacturer of Professional Motion Picture Equipment for Hollywood and the World